DEC 19 2014

Frank Schubert
Tracy Renewable Energy, LLC
P.O. Box 583
Tracy, CA 95378

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: N-8887
Project Number: N-1132068

Dear Mr. Schubert:

Enclosed for your review and comment is the District's analysis of Tracy Renewable Energy, LLC's application for an Authority to Construct for desalinization of treated waste water and distiller beet-to-ethanol production operations, at 9251 W Arbor Ave, Tracy, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice and 45-day EPA notice comment periods, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jag Kahlon of Permit Services at (209) 557-6452.

Sincerely,

Arnaud Marjollet
Director of Permit Services

cc: Mike Tollstrup, CARB (w/ enclosure) via email
cc: Gerardo C. Rios, EPA (w/ enclosure) via email
San Joaquin Valley Air Pollution Control District
Authority to Construct
Application Review

<table>
<thead>
<tr>
<th>Facility Name:</th>
<th>Tracy Renewable Energy, LLC</th>
<th>Date:</th>
<th>December 11, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing Address:</td>
<td>12300 Finck Road, Tracy, CA 95304</td>
<td>Engineer:</td>
<td>Jagmeet Kahlon</td>
</tr>
<tr>
<td>Contact Person:</td>
<td>Frank R. Schubert</td>
<td>Lead Engineer:</td>
<td>Nick Peirce</td>
</tr>
<tr>
<td>Telephone:</td>
<td>(831) 224-2513</td>
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<tr>
<td>Application #(#s):</td>
<td>N-8887-1-0 to -14 and -16 to -21-0</td>
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<td>Project #:</td>
<td>N-1132068</td>
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<tr>
<td>Deemed Complete:</td>
<td>August 19, 2014</td>
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I. PROPOSAL

Tracy Renewable Energy, LLC (referred in hereafter “TRE”) has proposed to build a new treated waste water desalinization plant as well as a distiller beet-to-ethanol production plant in Tracy, California.

The waste water desalination plant involves removal of salts from treated effluent (water plus other impurities) diverted from Tracy’s Waste Water Treatment Plant (WWTP). The plant will process 1.2 million gallons per day (mgpd) of water, which is about 13% of the total 9 mgpd of treated effluent. The processed water, low in salt, will be blended with the remaining 7.8 mgpd (9 mgpd -1.2 mgpd) before being discharged into Sacramento San Joaquin Delta (Delta). This process will reduce the overall salinity of the water discharged into the Delta, and will assist the City of Tracy to comply with Delta salinity standards. The desalination process will use two 175 MMBtu/hour (each) natural gas-fired boilers and a closed-loop steam driven evaporation system to distill the treated water. The steam discharged from the evaporation system will be re-used in a steam turbine to generate about 5 MW of electricity to support processes at the desalination plant as well as the distiller beet-to-ethanol production plant. One MW of the electricity may be supplied to operate the processes at Tracy WWTP if the contract is approved by the City of Tracy. At this time, there are no plans to sell electricity to Pacific Gas & Electric (PG&E), a local electric company.

The steam from the turbine will be used in various processes at the distiller beet-to-ethanol plant. The ethanol plant will be designed to produce 40 million gallons per year (mgpy) of 200-proof ethanol, or 42 mgpy of denatured ethanol, a blend of ethanol and gasoline.

Both the desalination plant and the distiller beet-to-ethanol plant constitute a single "Stationary Source" per Section 3.39 of District's Rule 2201 (common ownership,
operations belong to the same industrial grouping SIC 2899 (salt, water distilled) and 2869 (ethanol production), located on a contiguous property).

II. APPLICABLE RULES

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410 Prevention of Significant Deterioration (11/26/12)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Sources Performance Standards (4/14/99)
Rule 4002 National Emission Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101 Visible Emissions (2/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4202 Particulate Matter - Emission Rate (12/17/92)
Rule 4301 Fuel Burning Equipment (12/17/92)
Rule 4304 Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters (10/19/95)
Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2 (8/21/03)
Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3 (10/16/08)
Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters greater than 5.0 MMBtu/hr (10/16/08)
Rule 4351 Boilers, Steam Generators and Process Heaters – Phase 1 (8/21/03)
Rule 4455 Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants (4/20/05)
Rule 4621 Gasoline Transfer into Stationary Storage Containers, Delivery Vessels and Bulk Plants (12/19/13)
Rule 4623 Storage of Organic Liquids (5/19/05)
Rule 4624 Transfer of Organic Liquids (12/20/2007)
Rule 4701 Internal Combustion Engines – Phase 1 (8/21/03)
Rule 4702 Internal Combustion Engines (11/14/13)
Rule 4801 Sulfur Compounds (12/17/92)
Rule 7012 Hexavalent Chromium – Cooling Towers (12/17/92)
Rule 8011 General Requirements (8/19/04)
Rule 8021 Construction, Demolition, Excavation, Extraction, And Other Earthmoving Activities (8/19/04)
Rule 8031 Bulk Materials (8/19/04)
Rule 8041 Carryout And Trackout (8/19/04)
Rule 8051 Open Areas (8/19/04)
Rule 8061 Paved and Unpaved Roads (8/19/04)
Rule 8071 Unpaved Vehicle/Equipment Traffic Areas (9/16/04)
California Health & Safety Code 41700 Risk Management Review
California Health & Safety Code 42301.6 School Notice
Title 17 CCR Section 93115: Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
III. PROJECT LOCATION

This facility will be located at 9251 W Harbor Ave, Tracy, California.

The District has verified that the proposed project location is not within 1,000 feet of the outer boundary of any K-12 school site. Therefore, the public noticing requirement of California Health and Safety Code 42301.6 does not apply.

IV. PROCESS DESCRIPTION

The proposed operations at this site are as follows:

N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)

TRE has proposed to install two 175 MMBtu/hr (each) natural gas fired boilers. These boilers will supply steam to the evaporator system in the desalination process (explained below). The steam discharged from evaporation system will be used in a steam turbine, which will be coupled with a 5 MW electric generator to support the electric needs of the TRE desalination process and distiller beet-to-ethanol production plant. One MW of this electricity may be supplied to the Tracy WWTP. At this time, there are no plans to sell electricity to Pacific Gas & Electric (PG&E) Company.

Boilers are sources of NOx, SOx, PM10, CO, VOC, and CO2 emissions. To reduce NOx emissions, each boiler will be equipped with a selective catalytic reduction (SCR) system. The boiler will be using natural gas fuel to reduce SOx, PM10, CO, VOC, and CO2 emissions.

The desalination process uses a steam operated closed loop evaporator system. Per applicant, there will be no vent open to the atmosphere from this system. The process mineral concentrate will be pumped directly from the desalination unit and combined with the vinasse, a by-product of distiller beet processing, as it enters the vinasse evaporator. This process is not expected to release any emissions.

N-8887-3-0: Distiller beet receiving, storage and processing operations

TRE will receive distiller beets on a just-in-time (JIT) management basis via side-dumping trucks from nearby fields. The beets will be directly delivered into a wet hopper/flume system for conveying to the beet washing station to remove residual soil and other debris (known as Tare). The proposed maximum receiving rates are: 350 tons/hr; 5,500 tons/day; 1.73 million tons/year. This operation is a source of particulate matter emissions as some of the dried dirt on the beets may entrain into the air during unloading process.
After washing, beets will be transferred to slicers, in which the beets are reduced to strips called "cossettes". Cossettes enter the countercurrent cossette mixer through a feed hopper, where they are scalded with juice drawn off from the extraction tower to make the cell walls permeable for the release of sucrose molecules. Variable speed pumps deliver the cossette/juice mixture produced in the cossette mixer into the bottom of the extraction tower. Inside the extraction tower, extraction of the sucrose molecules from the beet cells take place while conveying flights and stops transport the densely packed cossettes from bottom to top. Two discharge conveyors draw the extracted cossettes (pulp) at the top end of the tower. The beet pulp is treated with 0.17% gypsum (calcium dehydrate or equivalent), and the beet pulp is then mechanically separated from water in downstream pulp presses. The press water obtained at this stage is completely returned to the extraction tower. Hot raw juice from the extraction tower is returned to the heat-exchanger section of the cossette mixer where it gives up its heat to the incoming cossettes and leaves the extraction system for further purification as "cold" raw juice. Extraction of the sucrose is a closed system with no air exposure. Therefore, this process is not expected to release any emissions.

The output from the pulp presses consists of beet juice to be pumped to the fermentation tanks and the wet beet pulp will be sold as-is to local dairies as cattle feed (see more details under pulp processing).

The raw juice will be filtered to remove suspended solids, and passed through a regenerative heating system during its transfer to the fermentation tanks. Waste heat from the desalinization process will be used to provide heat for the sterilization of the raw juice. This process is fully enclosed and is not expected to release any emissions into the atmosphere.

N-8887-4-0: Yeast preparation and pre-fermentation operation
The yeast inoculum will be cultured in a series of yeast vessels (40 gal, 260 gal, 1,807 gal, 11,360 gal) until the yeast population is sufficient. The inoculum will be metered into two 79,251 gal, each, pre-fermenter tanks. The mixture will be transferred into fermentation tanks where the actual fermentation takes place.

The equipment is a source of VOC emissions. These yeast tanks will be served by an American Environmental process (or equivalent vendor) vent scrubber. The process vent scrubber serves the equipment under permits N-8887-4, '-7, -9, -10, and '-11. The process vent gas scrubber is proposed to reduce at least 95% VOC emissions. Condensate collected in the scrubber will be injected into the rectifier/exhaust column of the distillation process to recover any residual alcohol.
N-8887-5-0: Fermentation Operation
The sterilized beet juice will be inoculated with yeast and fermented into ethanol in a batch process. This process takes about 20 hours per batch.

The facility will use four 526,295 gal (each) fermentation tanks. These tanks are sources of VOC and CO₂ emissions. These tanks will be vented to an American Environmental (or equivalent vendor) CO₂ wet scrubber. The scrubber exhaust will be vented through a CO₂ recovery system with high pressure condenser. The CO₂ scrubber is proposed to have at least 99.5% control efficiency for VOC emissions. The CO₂ scrubber serves the equipment under permits N-8887-5, '-6, and '-8. Liquid from the scrubber will be returned to the fermenters.

N-8887-6-0: Beerwell tank
After the fermentation stage the fermented juice, now termed "beer" (12-18% ethanol content) will be transferred to the beerwell tank.

TRE has proposed to install a 686,847 gal beerwell tank. This tank is a source of VOC and some CO₂ emissions, and is served by the control equipment mentioned under N-8887-5.

N-8887-7-0: Yeast cream separation operation
Fluid from the beerwell tank will be metered in two of three yeast cream centrifuges to separate the yeast cells. The separated product will be collected in a 7,132 gal collection tank, which is ducted to the scrubber mentioned under unit N-8887-4.

The collected yeast cream will then be transferred to the pre-fermenter tanks under fermentation operation. The clean fermented wash will be transferred to a 230,448 gal fermented wash holding tank (see below).

N-8887-8-0: Fermented wash holding tank
The clean fermented wash will be transferred to a 230,448 gal fermented wash holding tank. This tank will be vented to the scrubber under permit N-8887-5.

From the fermented wash holding tank, the wash will be metered to the distillation process (see below).

N-8887-9-0: Distillation operation
The equipment under this operation will distill the fermented wash to produce 93-94% ethanol. The fermented wash will be pumped from the wash holding tank through a pre-heater to heat the wash to 152-156°F before pumping into the first of three columns, the degasifying (DG) column, which serves to remove dissolved oxygen and CO₂ from the distillation feed stream to reduce corrosion and foaming during the distillation operation. Alcohol/water vapors from the top of the DG column will be condensed in the DG condenser and collected in the rectifier/exhaust column feed tank. Fermented wash from the bottom of the DG column will be transferred to
the analyzer column, in which the remaining alcohol will be stripped from the fermented wash. The remaining water and solids from the bottom of the analyzer column termed "vinasse" will be transferred to the evaporation section and concentrated to 70% solids and transferred into a 285,000 gallon syrup tank. The syrup can be either loaded out for direct sale or combined with the wet beet pulp and either sold as wet cake. The third column, the rectifier/exhaust column will be fed with the recovered alcohol/water mixture from the DG column, analyzer column and evaporation section via a rectifier feed tank. The alcohol/water mixture undergoes further distillation to produce 93-94% ethanol. The remaining water from this process will be transferred to the rectifier reflux tank to reclaim any remaining alcohol, which will then be combined with the main product stream. The 93-94% ethanol will be passed through one of two molecular sieves. In this step, the super-heated ethanol-water mixture will be passed across a resin bed. Water adsorbs to the resin beads resulting in pure ethanol as a product stream. When one molecular sieve becomes saturated with water, product flow will be switched to the second sieve and the first sieve will be regenerated by passing pure ethanol across the resin bed to strip the water from the beads. The resulting 200 proof ethanol from molecular sieve will be transferred into the storage tanks.

The distillation process includes a degasifying column, an analyzer column, rectifier/exhaust column, and two molecular sieves all driven by waste heat from the steam turbine or desalinization process. The distillation equipment will be served by a vent scrubber under permit N-8887-4.

N-8887-10-0: 30,000 gallon Condensate tank
TRE has proposed to install a 30,000 gallon process condensate tank to collect water from the evaporators and distillation system under N-8887-9. This tank is a potential source of VOC emissions. This tank will be served by the vent scrubber mentioned under N-8887-4.

N-8887-11-0: Vinasse processing, storage and loadout operation
Vinasse, which is comparable to thin stillage in a corn ethanol process, will be taken from the analyzer column at approximately 96% moisture and directed to the vinasse evaporator system consisting of four evaporators and associated tanks. The evaporator reduces the moisture to 70%, at which point it is termed "syrup". Syrup will be transferred to syrup tanks. Vinasse evaporator system is a source of VOC emissions. The exhaust from the evaporator system will be discharged through the vent scrubber under permit N-8887-4. The syrup may be loaded directly into tanker trucks for local sales. The syrup production and loadout rate will be 142,000 gal/day.

N-8887-12-0: 127,000 gallon internal floating roof tank (200-proof ethanol)
TRE has proposed to install a 127,000 gal internal floating roof tank to store 200-proof ethanol. This tank will have dual ultraseal wiper seal system.
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
TRE has proposed to install a 127,000 gal internal floating roof tank to store 200-proof ethanol. This tank will have dual ultraseal wiper seal system.

N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)
TRE has proposed to install a 381,000 gal internal floating roof tank to store 200-proof ethanol. This tank will have dual ultraseal wiper seal system.

N-8887-16-0: Beet pulp processing, storage and loadout operations
The pulp presses (mentioned under distiller beet processing operation) will produce approximately 1,100 tons/day of wet pulp with 28% solids (72% moisture).

Pulp will be conveyed via an enclosed conveyor to an enclosed permanent building. Inside the building, the wet pulp drops into an enclosed hopper vented by a 9,000 cfm exhaust fan ducted to a 5 MMBtu/hr natural gas-fired regenerative thermal oxidizer (RTO). From the hopper the pulp will be transferred via enclosed conveyor through the building wall outside to a 1500 cfm negative pressure truck loadout system, also vented to the same RTO (mentioned previously). Wet pulp will generally be shipped as it is being produced. Wet pulp will be generated at a rate of 50 tons per hour. Trucks will be loaded and shipped at a rate of 2 trucks per hour.

N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
TRE is proposing to install a 20,000 gal totally enclosed storage tank (pressure vessel) equipped with a bottom truck unloading and a balance type vapor recovery system. The vapor line from a tanker truck will be connected to vapor recovery line connected to the denaturant tank. The gasoline unloading rate would be 20,000 gal/hr, 50,000 gal/day, 2.5 million gal/yr.

N-8887-18-0: Denatured ethanol loading operation
Denatured ethanol will be made by blending 200-proof ethanol and gasoline during the loading operation.

Denatured ethanol will loaded into tanker trucks only. The equipment will consist of a denatured ethanol bottom truck loading rack with dry break couplers and a John Zink or equal VOC control system to capture the vapors from the tanker trucks.

There will be two loading racks. The maximum loading rate will be 30,000 gal/hr, 230,000 gal/day and 42 million gal/yr of denatured ethanol. The maximum number of disconnects would be 23/day.

N-8887-19-0: Cooling tower
The cooling tower will be used to remove heat from various process streams at the facility. This cooling tower will be equipped with high efficiency drift eliminator designed to reduce water carryover to 0.0005% of the circulating water rate. The proposed circulating water rate is 39,165 gpm.
Tracy Renewable Energy
N-8887-1 to '-14 and '-16 to '-21, N-1132068

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
This emergency engine will be used to generate power during power outages that is beyond the control of the operator.

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
This engine will power a fire pump assembly that is used to pressurize the fire suppression system.

V. EQUIPMENT LISTING

<table>
<thead>
<tr>
<th>Permit #</th>
<th>Equipment Description</th>
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<tbody>
<tr>
<td>N-8887-1-0</td>
<td>175 MMBTU/HR VICTORY ENERGY MODEL VOYAGER (OR EQUIVALENT MANUFACTURER OR MODEL) BOILER EQUIPPED WITH COEN MODEL VARIFLAME II (OR EQUIVALENT MANUFACTURER OR MODEL) LOW NOX BURNER AND A CATASTACK (OR EQUIVALENT MANUFACTURER OR MODEL) SELECTIVE CATALYTIC REDUCTION SYSTEM (BOILER #1). STEAM FROM BOILER#1 AND BOILER #2 SERVES CLOSED LOOP DESALINATION PROCESS, STEAM TURBINE WITH A 5 MW ELECTRIC GENERATOR AND DISTILLER BEET TO ETHANOL PRODUCTION PROCESS AT THIS SITE.</td>
</tr>
<tr>
<td>N-8887-2-0</td>
<td>175 MMBTU/HR VICTORY ENERGY MODEL VOYAGER (OR EQUIVALENT MANUFACTURER OR MODEL) BOILER EQUIPPED WITH COEN MODEL VARIFLAME II (OR EQUIVALENT MANUFACTURER OR MODEL) LOW NOX BURNER AND A CATASTACK (OR EQUIVALENT MANUFACTURER OR MODEL) SELECTIVE CATALYTIC REDUCTION SYSTEM (BOILER #2). STEAM FROM BOILER#1 AND BOILER #2 SERVES CLOSED LOOP DESALINATION PROCESS, STEAM TURBINE WITH A 5 MW ELECTRIC GENERATOR AND DISTILLER BEET TO ETHANOL PRODUCTION PROCESS AT THIS SITE.</td>
</tr>
<tr>
<td>N-8887-3-0</td>
<td>DISTILLER BEET RECEIVING, STORAGE, AND PROCESSING OPERATIONS CONSISTING OF BEET RECEIVING HOPPER(S), WASHING, SLICING, SUCROSE EXTRACTION TOWER, PULP PRESSES, STERILIZER, AND ASSOCIATED CONVEYING EQUIPMENT</td>
</tr>
<tr>
<td>N-8887-4-0</td>
<td>FOUR YEAST TANKS (40 GALLON, 2,260 GALLON, 1,807 GALLON AND 11,360 GALLON PROCESS TANKS), AND TWO 79,251 GALLON (EACH) FIXED ROOF PRE-FERMENTER TANKS SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-8887-4, '-7, '-9, '-10, and '-11)</td>
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<tr>
<td>Permit #</td>
<td>Equipment Description</td>
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<tr>
<td>N-8887-5-0</td>
<td>FERMENTATION PROCESS CONSISTING OF FOUR 526,295 GALLON (EACH) FIXED ROOF FERMENTATION TANKS, ALL SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) CO2 WET SCRUBBER WITH CONDENSER SYSTEM (SCRUBBER SHARED WITH PERMITS N-8887-5, '-6 AND '-8)</td>
</tr>
<tr>
<td>N-8887-6-0</td>
<td>ONE 686,847 GALLON FIXED ROOF BEERWELL PROCESS TANK SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) CO2 WET SCRUBBER WITH CONDENSER SYSTEM (SCRUBBER SHARED WITH PERMITS N-8887-5, '-6 AND '-8)</td>
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<tr>
<td>N-8887-7-0</td>
<td>TWO FULLY ENCLOSED YEAST CREAM SEPARATORS, AND A 7,132 GALLON YEAST CREAM COLLECTION TANK, ALL SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-8887-4, '-7, '-9, '-10, and '-11)</td>
</tr>
<tr>
<td>N-8887-8-0</td>
<td>ONE 230,448 GALLON FIXED ROOF FERMENTED WASH HOLDING PROCESS TANK SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) CO2 WET SCRUBBER WITH CONDENSER SYSTEM (SCRUBBER SHARED WITH PERMITS N-8887-5, '-6 AND '-8)</td>
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<tr>
<td>N-8887-9-0</td>
<td>DISTILLATION PROCESS CONSISTING OF A DEGASIFYING COLUMN, ANALYZER COLUMN, A RECTIFIER FEED PROCESS TANK, RECTIFIER/EXHAUST COLUMN, A RECTIFIER REFLUX TANK, AND TWO MOLECULAR SIEVES, ALL SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-8887-4, '-7, '-9, '-10, and '-11)</td>
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<tr>
<td>N-8887-10-0</td>
<td>ONE 30,000 GALLON PROCESS CONDENSATE TANK, COLLECTING WATER FROM THE EVAPORATORS (UNDER PERMIT N-8887-11) AND FROM THE DISTILLATION PROCESS (N-8887-9), SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-8887-4, '-7, '-9, '-10, and '-11)</td>
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<td>N-8887-11-0</td>
<td>VINASSE PROCESSING, STORAGE AND LOADOUT OPERATION CONSISTING OF FOUR EVAPORATORS AND ASSOCIATED TANKS, ALL DUCTED TO AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-8887-4, '-7, '-9, '-10, and '-11)</td>
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<td>N-8887-12-0</td>
<td>127,000 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK WITH A ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM (OR EQUIVALENT SEAL SYSTEM)</td>
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<td>N-8887-13-0</td>
<td>127,000 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK WITH A ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM (OR EQUIVALENT SEAL SYSTEM)</td>
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<tr>
<td>N-8887-14-0</td>
<td>381,000 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK WITH A ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM (OR EQUIVALENT SEAL SYSTEM)</td>
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<tr>
<td>N-8887-16-0</td>
<td>BEET PULP PROCESSING, STORAGE AND LOADOUT OPERATION: WET BEET PULP ENCLOSED HOPPER INSIDE THE PERMANENT BUILDING, TRUCK LOADOUT OPERATION OUTSIDE THE BUILDING AND ASSOCIATED ENCLOSED CONVEYORS. THE HOPPER AND TRUCK LOADOUT SYSTEM ARE SERVED BY A 5 MMBTU/HR EISENMAN VALVELESS (OR EQUIVALENT VENDOR AND MODEL) REGENERATIVE THERMAL OXIDIZER (RTO)</td>
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<tr>
<td>N-8887-17-0</td>
<td>20,000 GALLON TOTALLY ENCLOSED GASOLINE STORAGE TANK (PRESSURE VESSEL) WITH A BOTTOM TRUCK UNLOADING RACK AND A BALANCE TYPE VAPOR RECOVERY SYSTEM</td>
</tr>
<tr>
<td>N-8887-18-0</td>
<td>DENATURED ETHANOL BOTTOM TRUCK LOADING OPERATION CONSISTING OF TWO LOADING RACKS WITH DRY BREAK COUPLERS SERVED BY A JOHN ZINK MODEL S3-AAD-1-70-90-6 HYDROCARBON VAPOR RECOVERY UNIT (OR EQUIVALENT MAKE AND MODEL VRU)</td>
</tr>
<tr>
<td>N-8887-19-0</td>
<td>39,165 GALLONS PER MINUTE MARLEY FIELD COOLING TOWER SERVED BY HIGH EFFICIENCY DRIFT ELIMINATORS</td>
</tr>
<tr>
<td>N-8887-20-0</td>
<td>1,502 BHP CATERPILLAR MODEL C32 DIESEL-FUELED TIER 2 EMERGENCY STANDBY INTERNAL COMBUSTION ENGINE POWERING AN ELECTRIC GENERATOR</td>
</tr>
<tr>
<td>N-8887-21-0</td>
<td>237 BHP JOHN DEERE CO MODEL JU6H-UFAD88 TIER-3 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY INTERNAL COMBUSTION ENGINE POWERING A FIREWATER PUMP ASSEMBLY</td>
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</table>

**VI. EMISSION CONTROL TECHNOLOGY EVALUATION**

N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)

Low-NOx burners reduce NOx formation by producing lower flame temperatures (and longer flames) than conventional burners. Conventional burners thoroughly mix all the fuel and air in a single stage just prior to combustion, whereas low-NOx burners delay the mixing of fuel and air by introducing the fuel (or sometimes the air) in multiple stages. Generally, in the first combustion stage, the air-fuel mixture is fuel rich. In a
fuel rich environment, all the oxygen will be consumed in reactions with the fuel, leaving no excess oxygen available to react with nitrogen to produce thermal NOₓ. In the secondary and tertiary stages, the combustion zone is maintained in a fuel-lean environment. The excess air in these stages helps to reduce the flame temperature so that the reaction between the excess oxygen with nitrogen is minimized.

Each boiler will be equipped with its own selective catalytic reduction (SCR) system. SCR system operates as an external control device where flue gases and a reagent, in this case ammonia, are passed through an appropriate catalyst. Ammonia, will be injected upstream of the catalyst where it reacts and reduces NOₓ, over the catalyst bed, to form elemental nitrogen and other by-products. The use of a catalyst typically reduces the NOₓ emissions by up to 90%.

N-8887-3-0: Distiller beet receiving, storage and processing operations
No emission control equipment is proposed for the equipment under this permit. Therefore, technology evaluation is not required.

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-7-0: Yeast cream separation operation
N-8887-9-0: Distillation operation
N-8887-10-0: 10,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation
The equipment under these permits will be ducted to a process vent gas scrubber capable of achieving at least 95% control for VOC emissions. The condensate from the scrubber will be injected in the rectifier column of the distillation process (N-8887-9) to recover any residual ethanol.

N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-8-0: Fermented wash holding tank
The equipment under these permits will be vented to a CO₂ scrubber with high pressure condenser system to recover CO₂. The system is expected to reduce at 99.5% of VOC emissions.

N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)
The applicant has proposed to operate each internal floating roof tank with an Ultraflote model Dual Ultraseal seal system.

The Ultraflote model Dual Ultraseal seal system consists of two wiper seals mounted one above the other. In the past, the manufacturer of these seals has indicated that VOC emissions should be controlled with a minimum control efficiency of 95% with the use of this seal system. As a conservative estimate, a control efficiency of 95% for VOC emissions will be used for this seal system for the purposes of this project.
District Rule 4623, Storage of Organic Liquids, 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 seal system has been found to be equivalent to seals meeting the criteria set forth in Section 5.3 (specifications for External Floating Roof Tanks, also applicable to Internal Floating Roof Tanks). Therefore, this seal type is considered equivalent to a storage tank equipped with a primary and a secondary seal (e.g. mechanical shoe, resilient toroid, etc.).

N-8887-16-0: Beet pulp processing, storage and loadout operations
The beet pulp hopper and truck loadout system will be vented to a 5 MMBtu/hr natural gas-fired RTO, which is expected to reduce at least 98% of VOC emissions.

N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
This storage tank will be totally enclosed and is designed to prevent loss of organic liquid and/or VOC to the atmosphere. The loading rack will be a bottom loading rack type with dry break couplers and a balance type vapor collection system. The system is expected to reduce at least 95% of VOC emissions.

N-8887-18-0: Denatured ethanol loading operation
Denatured ethanol will be made by blending more than 95% of 200-proof ethanol and less than 5% of gasoline during truck loading process that uses bottom loading racks and dry break couplers.

The vapors from the tanker trucks will be vented into a John Zink hydrocarbon recovery system. This system is expected to reduce 99% of VOC emissions. This system will be equipped with two identical adsorbers each filled with activated carbon. One adsorber vessel will operate in the adsorption mode (i.e., on-stream) while the other is being regenerated (i.e., off-stream). To process the hydrocarbon vapor-air mixture, the mixture first flows up through the on-stream adsorber vessel. There, the activated carbon adsorbs the hydrocarbon vapors, so clean air vents from the bed with minimal hydrocarbon content. Simultaneously, the second adsorber is being regenerated off-line. The carbon bed regeneration uses a combination of high vacuum and purge air stripping to remove previously adsorbed hydrocarbon vapor from the carbon and restore the carbon's ability to adsorb vapor during the next cycle. A rotary-screw dry vacuum pump is used as the source of vacuum for carbon regeneration. The vacuum pump extracts concentrated hydrocarbon vapors from the carbon bed and discharges them into a three phase separator that separates the vacuum pump seal fluid, the hydrocarbon condensate and the non-condensed hydrocarbon/air vapors. The seal fluid is pumped from the separator through a seal fluid cooler to remove the heat of compression from the seal fluid. The seal fluid is

then returned to the liquid ring pump. Next, hydrocarbon vapor and condensate flow from the separator to an absorber column section that functions as the final recovery device. The hydrocarbon vapor flows up through the absorber packing where it will be subsequently recovered by absorption into a liquid hydrocarbon absorbent. The circulating absorbent supplied from storage serves the dual purpose of absorbing the recovered hydrocarbon vapor and cooling the vacuum pump seal fluid. This absorbent is normally the same hydrocarbon liquid that was the original source of vapor generation. The recovered product is simply returned to the product storage tank.

N-8887-19-0: Cooling tower
The cooling tower is a source of PM$_{10}$ emissions. PM$_{10}$ emissions are due to the total dissolved solids (TDS), mostly salts, in the cooling water. In the cooling process, some of the cooling water (and TDS) is carried out. This is referred to as drift. Some portion of the drift dries in the air before settling to ground, and its TDS content can thereby become airborne PM. The applicant has conservatively assumed that all TDS in the drift will remain suspended in the air and will dry to become airborne PM$_{10}$ emissions. This approach conservatively estimates the PM$_{10}$ emissions.

Cooling water drift is controlled by using drift eliminators in each of the cooling tower cells. These drift eliminators act as a coalescer for the evolved cooling water to collect on and drop back into the process stream. The proposed drift eliminators have a drift rate of 0.0005% (i.e. 0.0005% of the cooling water circulated is emitted into the atmosphere).

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine

The engine is equipped with:

- [X] Turbocharger
- [X] Intercooler/Aftercooler
- [X] Very Low (0.0015%) sulfur diesel

The emission control devices/technologies and their effect on diesel engine emissions detailed below are from *Non-catalytic NO$_x$ Control of Stationary Diesel Engines*, by Don Koeberlein, CARB.

The turbocharger reduces the NO$_x$ emission rate from the engine by approximately 10% by increasing the efficiency and promoting more complete burning of the fuel.

The intercooler/aftercooler functions in conjunction with the turbocharger to reduce the inlet air temperature. By reducing the inlet air temperature, the peak combustion temperature is lowered, which reduces the formation of thermal NO$_x$. NO$_x$ emissions are reduced by approximately 15% with this control technology.

The use of very low-sulfur diesel fuel (0.0015% by weight sulfur maximum) reduces SO$_x$ emissions by over 99% from standard diesel fuel.
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
The engine is equipped with:

[X] Turbocharger
[X] Very Low (0.0015%) sulfur diesel

The emission control devices/technologies and their effect on diesel engine emissions detailed below are from Non-catalytic NO\textsubscript{X} Control of Stationary Diesel Engines, by Don Koeberlein, CARB.

The turbocharger reduces the NO\textsubscript{X} emission rate from the engine by approximately 10% by increasing the efficiency and promoting more complete burning of the fuel.

The use of very low-sulfur diesel fuel (0.0015% by weight sulfur maximum) reduces SO\textsubscript{X} emissions by over 99% from standard diesel fuel.

VII. GENERAL CALCULATIONS

A. Assumptions

- Assumptions will be stated as they are made during the evaluation.

B. Emission Factors

1. Pre-Project Emission Factors (EF1)

EF1s are not available since all units in the project are new emission units.

2. Post-Project Emission Factors (EF2)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO\textsubscript{X} Startup/shutdown</td>
<td>0.048</td>
</tr>
<tr>
<td>NO\textsubscript{X} Steady-state</td>
<td>0.0062</td>
</tr>
<tr>
<td>SO\textsubscript{X}</td>
<td>0.00285</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>0.003</td>
</tr>
<tr>
<td>CO Startup/shutdown</td>
<td>0.048</td>
</tr>
<tr>
<td>CO Steady-state</td>
<td>0.037</td>
</tr>
<tr>
<td>VOC</td>
<td>0.0042</td>
</tr>
<tr>
<td>NH\textsubscript{3}</td>
<td>0.0042</td>
</tr>
</tbody>
</table>

N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)
N-8887-3-0: Distiller beet receiving, storage and processing operations

Assumptions:
- Soil adhered to distiller beets may cause particulate matter emissions.
- Distiller beets will be delivered to the plant regularly on JIT processing management basis for minimal on-site storage. Therefore, the soil adhered to the beet is assumed to be wet.

The emission factor for a conveyor used at an aggregate processing plant is 0.00110 lb-PM_{10}/ton of material per AP-42 Table 11.19.2-2 (8/04). This emission factor will be adjusted using the above information.

\[
EF2 = \left( \frac{5 \text{ tons-material}}{100 \text{ tons-beets}} \right) \left( 0.00110 \text{ lb-PM}\_{10} / \text{ton of material} \right) = 5.5 \times 10^{-5} \text{ lb-PM}_{10}/\text{ton of beets}
\]

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-7-0: Yeast cream separation operation
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation

Process Emissions:
The equipment under above permits will be vented a vent gas scrubber capable of reducing at least 95% of the VOC emissions.

TRE has proposed to establish VOC emission factor of '0.01161 lb/1,000 gal of ethanol produced' for each permit, as well as, the same VOC emission factor for all these permit units (listed above). Therefore,

\[
EF2 = 0.01161 \text{ lb-VOC}/1,000 \text{ gal of ethanol produced}
\]

Fugitive Emissions:
The emission factors (lb/hr/component) and leak detection and repair (LDAR) control effectiveness are taken from the application review under project N-1054197.

<table>
<thead>
<tr>
<th>Component Type</th>
<th>EF (lb/hr/component)</th>
<th>LDAR Control effectiveness (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valves (gas/vapor)</td>
<td>0.01316</td>
<td>92%</td>
</tr>
<tr>
<td>Valves (light liquid)</td>
<td>0.00888</td>
<td>92%</td>
</tr>
<tr>
<td>Pumps (light liquid)</td>
<td>0.04387</td>
<td>75%</td>
</tr>
<tr>
<td>Flanges (connectors)</td>
<td>0.00403</td>
<td>93%</td>
</tr>
<tr>
<td>Open ended lines</td>
<td>0.00376</td>
<td>93%</td>
</tr>
<tr>
<td>Pressure Relief Valves (gas/vapor)</td>
<td>0.22928</td>
<td>95%</td>
</tr>
</tbody>
</table>
N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-8-0: Fermented wash holding tank

Process Emissions:
The equipment under above permits will be vented a CO₂ wet scrubber with high pressure condenser system capable of reducing at least 99.5% of the VOC emissions.

TRE has proposed to establish VOC emission factor of ‘0.0626 lb/1,000 gal of ethanol produced’ for each permit, as well as, the same VOC emission factor for all these permit units (listed above). Therefore,

\[ EF_2 = 0.0626 \text{ lb-VOC/1,000 gal of ethanol produced} \]

Fugitive Emissions:
Please refer to EF under N-8887-4, ‘-7, '-9, '-10 and '-11.

N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)

Process emissions:
The potential emissions for these units will be taken directly from the EPA’S TANKS 4.0.9D program. Therefore, EF2s are not established for these permit units.

Fugitive Emissions:
Please refer to EF under N-8887-4, ‘-7, '-9, '-10 and '-11.

N-8887-16-0: Beet pulp processing and loadout operations
Beet pulp contains 72% moisture, so loading of wet pulp is not expected to cause any PM₁₀ emissions.

No VOC EF data is available for this process. However, EPA’s AP-42 table 9.10.1.2-2 (3/97) lists an uncontrolled emission factor of 0.11 lb-VOC/ton of wet pulp processed for a pulp dryer using fuel oil. This emission factor is presumed to be conservative and will be used here. Note that the facility is not proposing to use dryer to dry pulp. They will have a vapor collection system on the pulp hopper and loading process which will be ducted to the RTO expected to reduce 98% of the VOC emissions. Thus,

\[ EF_2 = (0.11 \text{ lb-VOC/ton of wet beet pulp })(1-0.98) \]
\[ = 0.0022 \text{ lb-VOC/ton of wet beet pulp} \]
Natural gas Combustion in the RTO:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>EF2 (lb/MMBtu)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>0.0059</td>
<td>Per applicant, emission factors are provided by the RTO manufacturer</td>
</tr>
<tr>
<td>SO&lt;sub&gt;2&lt;/sub&gt;</td>
<td>0.00285</td>
<td></td>
</tr>
<tr>
<td>PM&lt;sub&gt;10&lt;/sub&gt;</td>
<td>0.0076</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>0.036</td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>0.004</td>
<td></td>
</tr>
</tbody>
</table>

N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)

**Storage emissions:**
This tank will be operated as a pressure vessel. The tank will be equipped with a pressure-vacuum relief valve and will only release VOC to the atmosphere during an emergency scenario. Therefore, no VOC emissions are expected during steady state operations.

**Connection emissions:**
The density of the gasoline is assumed to be 5.6 lb/gal<sup>2</sup>. Further, the worst-case spillage rate is assumed to be 10 milliliters (mL) per disconnect. Using this information, VOC emission factor per connection would be:

\[
EF2 = \frac{10 \text{ mL-VOC/disconnect}}{1 \text{ gal/3,785 mL}} \times \frac{5.6 \text{ lb/gal}}{1 \text{ g/1,000 mg}} = 0.0148 \text{ lb-VOC/disconnect}
\]

**Fugitive Emissions:**
Please refer to EF under N-8887-4, '-7, '-9, '-10 and '-11.

N-8887-18-0: Denatured ethanol loading operation

**Loading operation:**
The setup of loading operation at TRE would be similar to the set up at Pacific Ethanol Stockton, LLC (N-7365) except that the denatured ethanol will be made during the loading process by blending 200-proof ethanol with gasoline. The ethanol loading rack will be served by a John Zink vapor recovery system. This vapor system is presumed to be designed such that no more than 10 milligrams (mg) of VOC would release per liter of product loaded. Thus,

\[
EF2 = \frac{10 \text{ mg-VOC/liter loaded}}{1 \text{ lb/453.6 g}} \times \frac{1 \text{ g/1,000 mg}}{3.785 \text{ liter/gallon}} = 0.08 \text{ lb-VOC/1,000 gallons product loaded}
\]

**Connection emissions:**
VOC emissions will be accounted for due to liquid spillage during connections and disconnections between the tanker trucks and the bottom loading racks.

<sup>2</sup>The density of the gasoline is taken from the application review under project N-1084284.
To meet the requirements of Rule 4624, the maximum spillage rate will be limited to 10 mL or less per disconnect. Assuming that all spilled liquid evaporates as VOC. Thus,

\[ EF_2 = (10 \text{ mL-VOC/ disconnect})(1 \text{ gal/3,785 mL})(6.55 \text{ lb/gal}) \]
\[ = 0.0173 \text{ lb-VOC/ disconnect} \]

**Fugitive Emissions:**
Please refer to EF under N-8887-4, '-7, '-9, '-10 and '-11.

N-8887-19-0: Cooling tower

PM\textsubscript{10} emissions from the cooling tower can be quantified using the drift of the circulating water flow rate, drift rate of 0.0005\% (typical for high efficiency drift eliminators), the maximum concentration of total dissolved solids (TDS) in the water, 1,000 ppmw, and the density of water.

\[ EF_2 = (5 \times 10^{-6} \text{ gal-drift/gal-water})(1,000 \times 10^{-6} \text{ lb-TDS/lb-drift})(8.34 \text{ lb/gal of drift water})(1 \text{ lb-PM}_{10}/\text{lb-TDS}) \]
\[ = 4.17 \times 10^{-5} \text{ lb-PM}_{10}/1,000 \text{ gal of water circulation} \]

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>EF2 (g/bhp-hr)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO\textsubscript{x}</td>
<td>4.93</td>
<td>Manufacturer technical data sheet</td>
</tr>
<tr>
<td>SO\textsubscript{x}</td>
<td>0.0051</td>
<td>District's IC engine templates, based on the use of 15 ppm S by wt. diesel</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>0.02</td>
<td>Manufacturer technical data sheet</td>
</tr>
<tr>
<td>CO</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>0.01</td>
<td></td>
</tr>
</tbody>
</table>

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>EF2 (g/bhp-hr)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO\textsubscript{x}</td>
<td>2.7</td>
<td>Manufacturer technical data sheet</td>
</tr>
<tr>
<td>SO\textsubscript{x}</td>
<td>0.0051</td>
<td>District’s IC engine templates, based on the use of 15 ppm S by wt. diesel</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>0.1</td>
<td>Manufacturer technical data sheet</td>
</tr>
<tr>
<td>CO</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>0.1</td>
<td></td>
</tr>
</tbody>
</table>

C. Potential to Emit

1. Pre-Project Potential to Emit (PE1)

\[ PE1 = 0 \]
2. Post-Project Potential to Emit (PE2)

N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)
For each boiler, the potential emissions are estimated as follows:

NO\textsubscript{x}, CO:

\textit{Startup/shutdown:}

Per applicant,

\textit{Startup:} \hspace{1cm} 2 hr/event, 1 startup/day, 24 hr/yr (total), 17.5 MMBtu/hr (\leq 10\% of the max heat input rate during startup), 0.048 lb-NO\textsubscript{x}/MMBtu, 0.048 lb-CO/MMBtu (30\% more than the steady state CO emissions of 0.037 lb-CO/MMBtu per applicant)

\textit{Shutdown:} \hspace{1cm} 0.5 hr/event, 1 shutdown/day, 6 hr/yr (total\textsuperscript{3}, heat input rate is assumed to be 17.5 MMBtu/hr (same as during the startup period), 0.048 lb-NO\textsubscript{x}/MMBtu, 0.048 lb-CO/MMBtu (NO\textsubscript{x} and CO same as during the startup period)

\textit{Startup (NO\textsubscript{x} or CO):}

NO\textsubscript{x} and CO startup emission factors are same. Therefore, the estimated emissions represent each of these pollutants.

\text{PE2 (lb/hr)} = (0.048 lb/MMBtu)(17.5 MMBtu/hr) \\
\hspace{1cm} = 0.840 lb/hr \\
\text{PE2 (lb/day)} = (0.840 lb/hr)(2.0 hr/day of total startup) \\
\hspace{1cm} = 1.7 lb/day \\
\text{PE2 (lb/yr)} = (0.840 lb/hr)(24 hr/yr of total startup) \\
\hspace{1cm} = 20 lb/yr \\

\textit{Shutdown (NO\textsubscript{x} or CO):}

NO\textsubscript{x} and CO startup emission factors are same. Therefore, the estimated emissions represent each of these pollutants.

\text{PE2 (lb/hr)} = (0.048 lb/MMBtu)(17.5 MMBtu/hr) \\
\hspace{1cm} = 0.840 lb/hr \\
\text{PE2 (lb/day)} = (0.840 lb/hr)(0.5 hr/day of total shutdown) \\
\hspace{1cm} = 0.4 lb/day \\

\textsuperscript{3}Shutdown time per year = (12 shutdowns/yr)(0.5 hr/shutdown) = 6 hr/yr
Tracy Renewable Energy
N-8887-1 to '-14 and '-'16 to '-'21, N-1132068

PE2 (lb/yr) = (0.840 lb/hr)(6 hr/yr of total shutdown)
= 5 lb/yr

Total Startup and Shutdown (NOx or CO)

PE2 (lb/hr) = 0.840 lb/hr + 0.840 lb/hr
= 1.680 lb/hr
PE2 (lb/day) = 1.7 lb/day + 0.4 lb/day
= 2.1 lb/day
PE2 (lb/yr) = 20 lb/yr + 5 lb/yr
= 25 lb/yr

Daily steady state and startup/shutdown comparison
Note that the steady state NOx and CO emissions for the combined startup and shutdown time of 2.5 hours/day are 2.7 lb/day\(^4\) and 16.2 lb/day\(^5\), respectively. These emissions are greater than 2.1 lb-NOx/day and 2.1 lb-CO/day emissions (estimated above). Therefore, the worst-case daily mass emissions will occur when the boilers operate in a steady state mode.

Annual steady state and startup/shutdown comparison
Steady state NOx and CO emissions for the combined startup and shutdown time period of 30 hours/yr are 33 lb/yr\(^6\) and 194 lb/yr\(^7\), respectively, which is greater than 25 lb-NOx/yr and 25 lb-CO/day emissions estimated above. Therefore, the worst-case annual mass emissions will occur when the boilers operate in a steady state mode.

Based on the above discussion, steady state emissions for NOx and CO represent the worst-case daily and annual emissions, and can be estimated using the following equations:

Steady state:
PE2 (lb/day) = (EF2 lb/MMBtu)(175 MMBtu/hr)(24 hr/day)
PE2 (lb/yr) = (EF2 lb/MMBtu)(175 MMBtu/hr)(8,760 hr/yr)

SO\(_x\), PM\(_{10}\), CO, VOC:
PE2 (lb/day) = (EF2 lb/MMBtu)(175 MMBtu/hr)(24 hr/day)
PE2 (lb/yr) = (EF2 lb/MMBtu)(175 MMBtu/hr)(8,760 hr/yr)

\(^4\)(0.0062 lb-NOx/MMBtu)(175 MMBtu/hr)(2.5 hr/day) = 2.7 lb-NOx/day
\(^5\)(0.037 lb-CO/MMBtu)(175 MMBtu/hr)(2.5 hr/day) = 16.2 lb-CO/day
\(^6\)(0.0062 lb-NOx/MMBtu)(175 MMBtu/hr)(30 hr/yr) = 33 lb-NOx/yr
\(^7\)(0.037 lb-CO/MMBtu)(175 MMBtu/hr)(30 hr/yr) = 194 lb-CO/yr
<table>
<thead>
<tr>
<th>Pollutant</th>
<th>EF2 (lb/MMBtu)</th>
<th>PE2 (lb/hr)</th>
<th>PE2 (lb/day)</th>
<th>PE2 (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx Startup and shutdown</td>
<td>--</td>
<td>1.680</td>
<td>2.1</td>
<td>25</td>
</tr>
<tr>
<td>NOx Steady-state</td>
<td>0.0062</td>
<td>1.085</td>
<td>26.0</td>
<td>9,505</td>
</tr>
<tr>
<td>SO2 (worst-case)</td>
<td>--</td>
<td>1.680</td>
<td>26.0</td>
<td>9,505</td>
</tr>
<tr>
<td>PM10</td>
<td>0.003</td>
<td>0.525</td>
<td>12.6</td>
<td>4,599</td>
</tr>
<tr>
<td>CO Startup and shutdown</td>
<td>--</td>
<td>1.680</td>
<td>2.1</td>
<td>25</td>
</tr>
<tr>
<td>CO Steady-state</td>
<td>0.037</td>
<td>6.475</td>
<td>155.4</td>
<td>56,721</td>
</tr>
<tr>
<td>CO (worst-case)</td>
<td>--</td>
<td>6.475</td>
<td>155.4</td>
<td>56,721</td>
</tr>
<tr>
<td>VOC</td>
<td>0.0042</td>
<td>0.735</td>
<td>17.6</td>
<td>6,439</td>
</tr>
<tr>
<td>NH3</td>
<td>0.0042</td>
<td>0.735</td>
<td>17.6</td>
<td>6,439</td>
</tr>
</tbody>
</table>

N-8887-3-0: Distiller beet receiving, storage and processing operations
The proposed receiving rates are 350 tons/hr, 5,500 tons/day and 1.73 million tons/yr. Thus,

\[
\text{PE2} = (5.5 \times 10^{-5} \text{ lb-PM}_{10}/\text{ton of beets})(350 \text{ tons/hr}, 5,500 \text{ tons/day}, 1.73E06 \text{ tons/yr})
\]

\[
= 0.02 \text{ lb-PM}_{10}/\text{hr}; 0.3 \text{ lb-PM}_{10}/\text{day}, 95 \text{ lb-PM}_{10}/\text{yr}
\]

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-7-0: Yeast cream separation operation
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation

Process Emissions:
The proposed ethanol production rates are 135,000 gal/day and 40 million gal/yr. Thus, the individual and combined emissions from the above permit units would be:

\[
\text{PE2} = (0.01161 \text{ lb-VOC}/1,000 \text{ gal of ethanol produced})(135,000 \text{ gal/day}; 40 \text{ million gal/yr})
\]

\[
= 1.6 \text{ lb-VOC/day}; 464 \text{ lb-VOC/yr}
\]

Fugitive Emissions:
\[
\text{PE2 (lb/day)} = (\text{EF2 lb/hr/component})(\text{Count})(1-\text{CE})(24 \text{ hr/day})
\]

\[
\text{PE2 (lb/yr)} = (\text{PE2 lb/day})(365 \text{ days/yr})
\]

Total (lb/day) = \sum \text{PE2 (lb/day)}
Total (lb/yr) = \sum \text{Total (lb/yr)}
<table>
<thead>
<tr>
<th>ID</th>
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<th>Count</th>
<th>LDAR (CE)</th>
<th>PE2 (lb/day)</th>
<th>PE2 (lb/yr)</th>
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<td>5</td>
<td>92%</td>
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<tr>
<td></td>
<td>Valves (light liquid)</td>
<td>0.00888</td>
<td>--</td>
<td>92%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Pumps (light liquid)</td>
<td>0.04387</td>
<td>--</td>
<td>75%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Flanges (connectors)</td>
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<td>93%</td>
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<tr>
<td></td>
<td>Open ended lines</td>
<td>0.00376</td>
<td>2</td>
<td>93%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PRV (gas/vapor)</td>
<td>0.22928</td>
<td>3</td>
<td>95%</td>
<td>0.8</td>
<td>292</td>
</tr>
<tr>
<td>Total</td>
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<tr>
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<td>0.01316</td>
<td>--</td>
<td>92%</td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td>Valves (light liquid)</td>
<td>0.00888</td>
<td>3</td>
<td>92%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Pumps (light liquid)</td>
<td>0.04387</td>
<td>--</td>
<td>75%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
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<td>Flanges (connectors)</td>
<td>0.00403</td>
<td>36</td>
<td>93%</td>
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<td>73</td>
</tr>
<tr>
<td></td>
<td>Open ended lines</td>
<td>0.00376</td>
<td>3</td>
<td>93%</td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td>PRV (gas/vapor)</td>
<td>0.22928</td>
<td>--</td>
<td>95%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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<td></td>
<td></td>
<td>0.3</td>
<td>110</td>
</tr>
<tr>
<td>N-8887-9-0</td>
<td>Valves (gas/vapor)</td>
<td>0.01316</td>
<td>26</td>
<td>92%</td>
<td>0.7</td>
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</tr>
<tr>
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<td>Valves (light liquid)</td>
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<td>Pumps (light liquid)</td>
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<td>Flanges (connectors)</td>
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<td>93%</td>
<td>1.3</td>
<td>475</td>
</tr>
<tr>
<td></td>
<td>Open ended lines</td>
<td>0.00376</td>
<td>3</td>
<td>93%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PRV (gas/vapor)</td>
<td>0.22928</td>
<td>3</td>
<td>95%</td>
<td>0.8</td>
<td>292</td>
</tr>
<tr>
<td>Total</td>
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<td></td>
<td></td>
<td></td>
<td>7.6</td>
<td>2,776</td>
</tr>
</tbody>
</table>
## Process Emissions:
The proposed ethanol production rates are 135,000 gal/day and 40 million gal/yr. Thus, the individual and combined emissions from the above permit units would be:

\[
PE_2 = (0.0626 \text{ lb-VOC/1,000 gal of ethanol produced})(135,000 \text{ gal/day; 40 million gal/yr})
\]
\[
= 8.5 \text{ lb-VOC/day; 2,504 lb-VOC/yr}
\]

### Fugitive Emissions:
PE2 (lb/day) = (EF2 lb/hr/component)(Count)(1-CE)(24 hr/day)
Tracy Renewable Energy
N-8887-1 to '14 and '16 to '21, N-1132068

\[ \text{PE2 (lb/yr)} = (\text{PE2 lb/day})(365 \text{ days/yr}) \]

Total (lb/day) = \( \sum \text{PE2 (lb/day)} \)

Total (lb/yr) = (Total lb/day)(365 days/yr)

<table>
<thead>
<tr>
<th>ID</th>
<th>Component Type</th>
<th>EF2 (^{(\text{lb/hr/unit})})</th>
<th>Count</th>
<th>LDAR (^{(\text{CE})})</th>
<th>PE2 (^{(\text{lb/day})})</th>
<th>PE2 (^{(\text{lb/yr})})</th>
</tr>
</thead>
<tbody>
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<td>N-8887-5-0</td>
<td>Valves (gas/vapor)</td>
<td>0.01316</td>
<td>6</td>
<td>92%</td>
<td>0.2</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Valves (light liquid)</td>
<td>0.00888</td>
<td>35</td>
<td>92%</td>
<td>0.6</td>
<td>219</td>
</tr>
<tr>
<td></td>
<td>Pumps (light liquid)</td>
<td>0.04387</td>
<td>5</td>
<td>75%</td>
<td>1.3</td>
<td>475</td>
</tr>
<tr>
<td></td>
<td>Flanges (connectors)</td>
<td>0.00403</td>
<td>65</td>
<td>93%</td>
<td>0.4</td>
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</tr>
<tr>
<td></td>
<td>Open ended lines</td>
<td>0.00376</td>
<td>26</td>
<td>93%</td>
<td>0.2</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>PRV (gas/vapor)</td>
<td>0.22928</td>
<td>5</td>
<td>95%</td>
<td>1.4</td>
<td>511</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
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<td>--</td>
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<td><strong>1,497</strong></td>
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<td>N-8887-6-0</td>
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<td>0.01316</td>
<td>2</td>
<td>92%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Valves (light liquid)</td>
<td>0.00888</td>
<td>9</td>
<td>92%</td>
<td>0.2</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Pumps (light liquid)</td>
<td>0.04387</td>
<td>2</td>
<td>75%</td>
<td>0.5</td>
<td>183</td>
</tr>
<tr>
<td></td>
<td>Flanges (connectors)</td>
<td>0.00403</td>
<td>13</td>
<td>93%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Open ended lines</td>
<td>0.00376</td>
<td>6</td>
<td>93%</td>
<td>0.2</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>PRV (gas/vapor)</td>
<td>0.22928</td>
<td>1</td>
<td>95%</td>
<td>0.3</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td><strong>1.2</strong></td>
<td><strong>440</strong></td>
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<tr>
<td>N-8887-8-0</td>
<td>Valves (gas/vapor)</td>
<td>0.01316</td>
<td>1</td>
<td>92%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Valves (light liquid)</td>
<td>0.00888</td>
<td>6</td>
<td>92%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Pumps (light liquid)</td>
<td>0.04387</td>
<td>2</td>
<td>75%</td>
<td>0.5</td>
<td>183</td>
</tr>
<tr>
<td></td>
<td>Flanges (connectors)</td>
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<td>20</td>
<td>93%</td>
<td>0.1</td>
<td>37</td>
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<tr>
<td></td>
<td>Open ended lines</td>
<td>0.00376</td>
<td>6</td>
<td>93%</td>
<td>0.2</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>PRV (gas/vapor)</td>
<td>0.22928</td>
<td>1</td>
<td>95%</td>
<td>0.3</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td><strong>1.0</strong></td>
<td><strong>367</strong></td>
</tr>
</tbody>
</table>
N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)

Process Emissions:
EPA's Tanks 4.0.9d is used to estimate the potential VOC emissions from this tank. The following parameters are used:

- Throughput rate = 4,185,000 gal/month\(^8\), 40 million gal/yr
- Ethanol is assumed to insignificant amount of water vapors.

The daily emissions are estimated using potential emissions for the month of July, considered to be hottest month in the San Joaquin Valley.

\[
PE2 = \frac{53.37 \text{ lb-VOC/month of July}}{31 \text{ day/month of July}} = 1.7 \text{ lb-VOC/day}
\]

The annual emissions are estimated using the annual throughput rate.

\[
PE2 = 502 \text{ lb-VOC/yr}
\]

**Fugitive Emissions:**

\[
PE2 \text{ (lb/day)} = (EF2 \text{ lb/hr/component})(\text{Count})(1-\text{CE})(24 \text{ hr/day})
\]

\[
PE2 \text{ (lb/yr)} = (PE2 \text{ lb/day})(365 \text{ days/yr})
\]

**Total (lb/day) = \sum PE2 (lb/day)**

**Total (lb/yr) = (Total lb/day)(365 days/yr)**

<table>
<thead>
<tr>
<th>ID</th>
<th>Component Type</th>
<th>EF2 (lb/hr/unit)</th>
<th>Count</th>
<th>LDAR (CE)</th>
<th>PE2 (lb/day)</th>
<th>PE2 (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-8887-12-0, or '-13-0</td>
<td>Valves (gas/vapor)</td>
<td>0.01316</td>
<td>0</td>
<td>92%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Valves (light liquid)</td>
<td>0.00888</td>
<td>3</td>
<td>92%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Pumps (light liquid)</td>
<td>0.04387</td>
<td>2</td>
<td>75%</td>
<td>0.5</td>
<td>183</td>
</tr>
<tr>
<td></td>
<td>Flanges (connectors)</td>
<td>0.00403</td>
<td>12</td>
<td>93%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Open ended lines</td>
<td>0.00376</td>
<td>2</td>
<td>93%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PRV (gas/vapor)</td>
<td>0.22928</td>
<td>1</td>
<td>95%</td>
<td>0.3</td>
<td>110</td>
</tr>
<tr>
<td>Total</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1.0</td>
<td>367</td>
</tr>
</tbody>
</table>

Note that a copy of the TANKS program run is included in Appendix VII of this document.

\(^8\) 135,000 gal/day x 31 days/month
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)

Process Emissions:
EPA's Tanks 4.0.9d is used to estimate the potential VOC emissions from this tank. The following parameters are used:

- Throughput rate = 4,185,000 gal/month\(^9\), 40 million gal/yr
- 200-proof ethanol is assumed to contain 100% ethanol

The daily emissions are estimated using potential emissions for the month of July, considered to be hottest month in the San Joaquin Valley.

\[
\text{PE2} = \frac{44.53 \text{ lb-VOC/month of July}}{31 \text{ day/month of July}} = 1.4 \text{ lb-VOC/day}
\]

The annual emissions are estimated using the annual throughput rate.

\[
\text{PE2} = 415 \text{ lb-VOC/yr}
\]

Fugitive Emissions:

\[
\text{PE2 (lb/day)} = (\text{EF2 lb/hr/component})(\text{Count})(\text{1-CE})(24 \text{ hr/day})
\]

\[
\text{PE2 (lb/yr)} = (\text{PE2 lb/day})(365 \text{ days/yr})
\]

Total (lb/day) = \(\Sigma\text{PE2 (lb/day)}\)

Total (lb/yr) = (Total lb/day)(365 days/yr)

<table>
<thead>
<tr>
<th>ID</th>
<th>Component Type</th>
<th>EF2</th>
<th>Count</th>
<th>LDAR (CE)</th>
<th>PE2 (lb/day)</th>
<th>PE2 (lb/yr)</th>
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</thead>
<tbody>
<tr>
<td>N-8887-14-0</td>
<td>Valves (gas/vapor)</td>
<td>0.01316</td>
<td>0</td>
<td>92%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Valves (light liquid)</td>
<td>0.00888</td>
<td>3</td>
<td>92%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Pumps (light liquid)</td>
<td>0.04387</td>
<td>2</td>
<td>75%</td>
<td>0.5</td>
<td>183</td>
</tr>
<tr>
<td></td>
<td>Flanges (connectors)</td>
<td>0.00403</td>
<td>12</td>
<td>93%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Open ended lines</td>
<td>0.00376</td>
<td>2</td>
<td>93%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PRV (gas/vapor)</td>
<td>0.22928</td>
<td>1</td>
<td>95%</td>
<td>0.3</td>
<td>110</td>
</tr>
<tr>
<td>Total</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1.0</td>
<td>367</td>
</tr>
</tbody>
</table>

Note that a copy of the TANKS program run is included in Appendix VII of this document.

\(\footnote{135,000 \text{ gal/day} \times 31 \text{ days/month}}\)
Tracy Renewable Energy
N-8887-1 to '14 and '16 to '21, N-1132068

N-8887-16-0: Beetle pulp processing and loadout operations
The beetle pulp processing and loadout rate will be 326 tons/day, 104,320 tons/yr. Thus,
\[ PE_2 = (0.0022 \text{ lb-VOC/ton of wet pulp})(326 \text{ tons/day}; 104,320 \text{ tons/yr}) \]
\[ = 0.7 \text{ lb-VOC/day}; 230 \text{ lb-VOC/yr} \]

Natural gas combustion in RTO:
\[ PE_2 (\text{lb/day}) = (EF_2 \text{ lb/MMBtu})(5 \text{ MMBtu/hr})(24 \text{ hr/day}) \]
\[ PE_2 (\text{lb/yr}) = (PE_2 \text{ lb/day})(365 \text{ days/yr}) \]

<table>
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<tr>
<th>Pollutant</th>
<th>EF2 (lb/MMBtu)</th>
<th>PE2 (lb/day)</th>
<th>PE2 (lb/yr)</th>
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</thead>
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<td>NOx</td>
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<td>0.7</td>
<td>256</td>
</tr>
<tr>
<td>SO2</td>
<td>0.00285</td>
<td>0.3</td>
<td>110</td>
</tr>
<tr>
<td>PM10</td>
<td>0.0076</td>
<td>0.9</td>
<td>329</td>
</tr>
<tr>
<td>CO</td>
<td>0.036</td>
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<td>1,570</td>
</tr>
<tr>
<td>VOC</td>
<td>0.004</td>
<td>0.5</td>
<td>183</td>
</tr>
</tbody>
</table>

N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
Storage emissions:
\[ PE_2 = 0 \text{ lb-VOC/day}, 0 \text{ lb-VOC/yr} \]

Connection emissions:
The proposed maximum receiving rate is 50,000 gal/day and 2.5 million gal/year. A gasoline delivery truck holds a maximum of 10,000 gallons of gasoline. Therefore, the facility may receive up to 5 trucks/day\textsuperscript{10} and 250 trucks/year\textsuperscript{11}.

With two connections per truck delivery, there will be a total of 10 connections/day and 500 connections/year.
\[ PE_2 = (0.0148 \text{ lb-VOC/disconnect})(10 \text{ disconnects/day}, 500 \text{ disconnects/yr}) \]
\[ = 0.1 \text{ lb-VOC/day}, 7 \text{ lb-VOC/yr} \]

Fugitive Emissions:
\[ PE_2 (\text{lb/day}) = (EF_2 \text{ lb/hr/component})(\text{Count})(1-CE)(24 \text{ hr/day}) \]
\[ PE_2 (\text{lb/yr}) = (PE_2 \text{ lb/day})(365 \text{ days/yr}) \]

Total (lb/day) = \( \Sigma \)PE2 (lb/day)
Total (lb/yr) = (Total lb/day)(365 days/yr)

\textsuperscript{10} 50,000 gal-gasoline/day ÷ 10,000 gal-gasoline/truck = 5 trucks/day
\textsuperscript{11} 2.5 x 10^6 gal-gasoline/day ÷ 10,000 gal-gasoline/truck = 250 trucks/yr
### N-8887-16-0: Denatured ethanol loading operation

**Loading operation:**
The maximum loadout rate would be 230,000 gal/day and 42 million gal/yr. Thus,

\[
PE2 = (0.08 \text{ lb-VOC/1,000 gal})(230,000 \text{ gal/day}; 42 \text{ million gal/yr})
\]

\[
= 18.4 \text{ lb-VOC/day; 3,360 lb-VOC/yr}
\]

**Connection emissions:**
Per applicant, the maximum number of disconnects would be 23 disconnects/day.

\[
PE2 = (0.0173 \text{ lb-VOC/disconnect})(23 \text{ disconnects/day}, 4,200 \text{ disconnects/yr}^{12})
\]

\[
= 0.4 \text{ lb-VOC/day, 73 lb-VOC/yr}
\]

**Fugitive Emissions:**

\[
PE2 \text{ (lb/day)} = (EF2 \text{ lb/hr/component})(\text{Count})(1-\text{CE})(24 \text{ hr/day})
\]

\[
PE2 \text{ (lb/yr)} = (PE2 \text{ lb/day})(365 \text{ days/yr})
\]

\[
\text{Total (lb/day)} = \sum PE2 \text{ (lb/day)}
\]

\[
\text{Total (lb/yr)} = (\text{Total lb/day})(365 \text{ days/yr})
\]

---

<table>
<thead>
<tr>
<th>ID</th>
<th>Component Type</th>
<th>EF2 (lb/hr/unit)</th>
<th>Count</th>
<th>LDAR (CE)</th>
<th>PE2 (lb/day)</th>
<th>PE2 (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Valves (gas/vapor)</td>
<td>0.01316</td>
<td>1</td>
<td>92%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Valves (light liquid)</td>
<td>0.00888</td>
<td>6</td>
<td>92%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Pumps (light liquid)</td>
<td>0.04387</td>
<td>2</td>
<td>75%</td>
<td>0.5</td>
<td>183</td>
</tr>
<tr>
<td></td>
<td>Flanges (connectors)</td>
<td>0.00403</td>
<td>33</td>
<td>93%</td>
<td>0.2</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Open ended lines</td>
<td>0.00376</td>
<td>0</td>
<td>93%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PRV (gas/vapor)</td>
<td>0.22928</td>
<td>1</td>
<td>95%</td>
<td>0.3</td>
<td>110</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.1</td>
<td>403</td>
</tr>
</tbody>
</table>
Tracy Renewable Energy  
N-8887-1 to -14 and -16 to -21, N-1132068

<table>
<thead>
<tr>
<th>ID</th>
<th>Component Type</th>
<th>EF2 (lb/hr/unit)</th>
<th>Count</th>
<th>LDAR (CE)</th>
<th>PE2 (lb/day)</th>
<th>PE2 (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-8887-18-0</td>
<td>Valves (gas/vapor)</td>
<td>0.01316</td>
<td>4</td>
<td>92%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Valves (light liquid)</td>
<td>0.00888</td>
<td>4</td>
<td>92%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Pumps (light liquid)</td>
<td>0.04387</td>
<td>4</td>
<td>75%</td>
<td>1.1</td>
<td>402</td>
</tr>
<tr>
<td></td>
<td>Flanges (connectors)</td>
<td>0.00403</td>
<td>16</td>
<td>93%</td>
<td>0.1</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Open ended lines</td>
<td>0.00376</td>
<td>0</td>
<td>93%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PRV (gas/vapor)</td>
<td>0.22928</td>
<td>1</td>
<td>95%</td>
<td>0.3</td>
<td>110</td>
</tr>
<tr>
<td>Total</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1.7</td>
<td>623</td>
</tr>
</tbody>
</table>

N-8887-19-0: Cooling tower
PE2 = (4.17 x 10⁻⁵ lb-PM₁₀/1,000 gal of water circulation)(39,165 gal/min)(1,440 min/day)  
= 2.4 lb-PM₁₀/day (876 lb-PM₁₀/yr)

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
Assumptions:
Emergency operating schedule: 24 hours/day
Non-emergency operating schedule: 50 hours/year
Density of diesel fuel: 7.1 lb/gal
EPA F-factor (adjusted to 60 °F): 9,051 dscf/MMBtu
Fuel heating value: 137,000 Btu/gal
BHP to Btu/hr conversion: 2,542.5 Btu/bhp-hr
Thermal efficiency of engine: ≈ 35%
PM₁₀ fraction of diesel exhaust: 0.96 (CARB, 1988)

Potential emissions:
NOₓ, SOₓ, PM₁₀, CO and VOC:
PE2 (lb/day) = (EF2 g/bhp-hr)(1,502 bhp)(24 hr/day)(lb/453.6 g)  
PE2 (lb/yr) = (EF2 g/bhp-hr)(1,502 bhp)(50 hr/yr)(lb/453.6 g)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>EF2 (g/bhp-hr)</th>
<th>PE2 (lb/day)</th>
<th>PE2 (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOₓ</td>
<td>4.93</td>
<td>391.8</td>
<td>816</td>
</tr>
<tr>
<td>SOₓ</td>
<td>0.0051</td>
<td>0.4</td>
<td>1</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>0.02</td>
<td>1.6</td>
<td>3</td>
</tr>
<tr>
<td>CO</td>
<td>0.13</td>
<td>10.3</td>
<td>22</td>
</tr>
<tr>
<td>VOC</td>
<td>0.01</td>
<td>0.8</td>
<td>2</td>
</tr>
</tbody>
</table>
Tracy Renewable Energy
N-8887-1 to '14 and '16 to '21, N-1132068

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

Assumptions:
Emergency operating schedule: 24 hours/day
Non-emergency operating schedule: 100 hours/year
Density of diesel fuel: 7.1 lb/gal
EPA F-factor (adjusted to 60 °F): 9,051 dscf/MMBtu
Fuel heating value: 137,000 Btu/gal
BHP to Btu/hr conversion: 2,542.5 Btu/bhp-hr
Thermal efficiency of engine: ≈ 35%
PM10 fraction of diesel exhaust: 0.96 (CARB, 1988)

Potential emissions:
NOx, SOx, PM10, CO and VOC:

\[
\text{PE2 (lb/day)} = (\text{EF2 g/bhp-hr})(237 \text{ bhp})(24 \text{ hr/day})(\text{lb/453.6 g})
\]
\[
\text{PE2 (lb/yr)} = (\text{EF2 g/bhp-hr})(237 \text{ bhp})(100 \text{ hr/yr})(\text{lb/453.6 g})
\]

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>EF2 (g/bhp-hr)</th>
<th>PE2 (lb/day)</th>
<th>PE2 (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>2.7</td>
<td>33.9</td>
<td>141</td>
</tr>
<tr>
<td>SOx</td>
<td>0.0051</td>
<td>0.1</td>
<td>0</td>
</tr>
<tr>
<td>PM10</td>
<td>0.1</td>
<td>1.3</td>
<td>5</td>
</tr>
<tr>
<td>CO</td>
<td>0.9</td>
<td>11.3</td>
<td>47</td>
</tr>
<tr>
<td>VOC</td>
<td>0.1</td>
<td>1.3</td>
<td>5</td>
</tr>
</tbody>
</table>

3. Quarterly Emission Change (QEC)

This calculation is required for application's emission profile, which is used for the District's internal tracking purposes.

NOx:
QEC = \[\{(\text{PE2}_{\text{EACH UNIT}}) \text{ lb/yr} ÷ (\text{Total PE2}_{\text{ALL UNITS}}) \text{ lb/yr}) \times (20,147 \text{ lb/yr}^{13})\] ÷ 4

SOx, PM10, CO:
QEC = PE2 lb/yr ÷ 4

VOC:
QEC = \[\{(\text{PE2}_{\text{EACH UNIT}}) \text{ lb/yr} ÷ (\text{Total PE2}_{\text{ALL UNITS}}) \text{ lb/yr}) \times (25,866 \text{ lb/yr}^{14})\] ÷ 4

---

13TRE has proposed to limit facility-wide NOx emissions to 20,147 lb/yr.
14TRE has proposed to limit facility-wide VOC emissions to 25,866 lb/yr.
4. Adjusted Increase in Permitted Emissions (AIPE)

AIPE is used to determine if BACT is required for emission units that are being modified with a valid Permit to Operate (PTO). AIPE is calculated using the equations mentioned in Section 4.3 and 4.4 of Rule 2201.

\[
\text{AIPE} = PE_2 - \left( \frac{EF_2}{EF_1} \right) (PE_1)
\]

The proposed equipment under each permit unit is new. Therefore, AIPE calculations are not required.

D. Facility Emissions

1. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to Section 4.9 of District Rule 2201, SSPE1 is the Potential to Emit from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERCs) which have been banked since September 19, 1991 for Actual Emissions

<table>
<thead>
<tr>
<th>Permit #</th>
<th>NO\textsubscript{X}</th>
<th>SO\textsubscript{X}</th>
<th>PM\textsubscript{10}</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-8887-1-0</td>
<td>2,367</td>
<td>1,092</td>
<td>1,150</td>
<td>14,180</td>
<td>1,460</td>
</tr>
<tr>
<td>N-8887-2-0</td>
<td>2,367</td>
<td>1,092</td>
<td>1,150</td>
<td>14,180</td>
<td>1,460</td>
</tr>
<tr>
<td>N-8887-3-0</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>N-8887-4-0, '-7-0, <code>9-0, </code>10 or `-11-0* (each)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>178</td>
</tr>
<tr>
<td>N-8887-5-0, <code>-6-0, or </code>-8-0* (each)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>363</td>
</tr>
<tr>
<td>N-8887-12-0 or `-13-0*</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>140</td>
</tr>
<tr>
<td>N-8887-14-0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>177</td>
</tr>
<tr>
<td>N-8887-16-0</td>
<td>64</td>
<td>28</td>
<td>82</td>
<td>393</td>
<td>94</td>
</tr>
<tr>
<td>N-8887-17-0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>93</td>
</tr>
<tr>
<td>N-8887-18-0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>919</td>
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<td>N-8887-19-0</td>
<td>0</td>
<td>0</td>
<td>219</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>N-8887-20-0</td>
<td>203</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>N-8887-21-0</td>
<td>35</td>
<td>0</td>
<td>1</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>

*QEC divided equally among these permit units.
Reductions (AERs) that have occurred at the source, and which have not been used on-site. At this time, no ATCs or PTOs exist for this facility. Therefore, SSPE1 is zero for each pollutant.

2. Post-Project Stationary Source Potential Emissions (SSPE2)

Pursuant to Section 4.10 of District Rule 2201, the Post-Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site. Note that the applicant has proposed to establish the following facility-wide limits in the permits:

NOx: 20,147 lb/yr; VOC: 25,866 lb/yr

<table>
<thead>
<tr>
<th>Permit #</th>
<th>NOx</th>
<th>SOx</th>
<th>PM10</th>
<th>CO</th>
<th>VOC</th>
<th>NH3</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-8887-1-0</td>
<td>9,505</td>
<td>4,369</td>
<td>4,599</td>
<td>56,721</td>
<td>6,439</td>
<td>6,439</td>
</tr>
<tr>
<td>N-8887-2-0</td>
<td>9,505</td>
<td>4,369</td>
<td>4,599</td>
<td>56,721</td>
<td>6,439</td>
<td>6,439</td>
</tr>
<tr>
<td>N-8887-3-0</td>
<td>0</td>
<td>0</td>
<td>95</td>
<td>0</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>N-8887-4-0, '-7-0, '-9-0, '-10, '-11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>464</td>
<td>--</td>
</tr>
<tr>
<td>Fugitives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>associated with N-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8887-4-0, '-7-0, '-9-0, '-10, '-11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3,472</td>
<td>--</td>
</tr>
<tr>
<td>N-8887-5-0, '-6-0 and '-8-0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>2,504</td>
<td>--</td>
</tr>
<tr>
<td>Fugitives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>associated with N-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8887-5-0, '-6-0 and '-8-0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>N-8887-12-0 and '-13-0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>502</td>
<td>--</td>
</tr>
<tr>
<td>Fugitives</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>associated with N-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8887-12-0 and '-13-0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>734</td>
<td>--</td>
</tr>
<tr>
<td>N-8887-14-0</td>
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<td>0</td>
<td>415</td>
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</tr>
<tr>
<td>Fugitives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>associated with N-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8887-14-0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>367</td>
<td>--</td>
</tr>
<tr>
<td>N-8887-16-0</td>
<td>256</td>
<td>110</td>
<td>329</td>
<td>1,570</td>
<td>413</td>
<td>--</td>
</tr>
</tbody>
</table>
Continue...

<table>
<thead>
<tr>
<th>Permit #</th>
<th>NOₓ</th>
<th>SOₓ</th>
<th>PM₁₀</th>
<th>CO</th>
<th>VOC</th>
<th>NH₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-8887-17-0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>Fugitives associated with N-8887-17-0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>410*</td>
</tr>
<tr>
<td>N-8887-18-0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3,360</td>
</tr>
<tr>
<td>Fugitives associated with N-8887-18-0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>696*</td>
</tr>
<tr>
<td>N-8887-19-0</td>
<td>0</td>
<td>0</td>
<td>876</td>
<td>0</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>N-8887-20-0</td>
<td>816</td>
<td>1</td>
<td>3</td>
<td>22</td>
<td>2</td>
<td>--</td>
</tr>
<tr>
<td>N-8887-21-0</td>
<td>141</td>
<td>0</td>
<td>5</td>
<td>47</td>
<td>5</td>
<td>--</td>
</tr>
<tr>
<td>Total with Fugitives</td>
<td>20,223</td>
<td>8,849</td>
<td>10,506</td>
<td>115,081</td>
<td>28,526</td>
<td>12,878</td>
</tr>
<tr>
<td>Total without Fugitives</td>
<td>20,223</td>
<td>8,849</td>
<td>10,506</td>
<td>115,081</td>
<td>20,543</td>
<td>12,878</td>
</tr>
<tr>
<td><strong>Facility-wide limit</strong></td>
<td>20,147</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>25,866</td>
<td>--</td>
</tr>
</tbody>
</table>

*Includes "hose connect/disconnect" emissions;
**The applicant has requested these facility-wide limits.

3. Major Source Determination

**Rule 2201 Major Source Determination**

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- Any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

The 'chemical process plant' definition in section 40 CFR 51.165 excludes ethanol production facilities that produces ethanol by natural fermentation included in NAICS codes 325193 or 312140. This facility will produce ethanol by natural fermentation and is covered under NAICS code 325193. Therefore, fugitive emissions will be excluded from the facility's total to determine its Major Source status.
from the above table, this facility is not existing major source for any pollutant. note that the facility is becoming a new major source for \( \text{NO}_x \) and \( \text{VOC} \) emissions.

rule 2410 major source determination
due to the boilers, this facility belongs to one of the categories specified in 40 CFR 52.21(b)(1)(iii). therefore, PSD major source threshold is 100 tons/yr for each pollutant.

from the above table, the facility is not an existing major source under PSD for any pollutant.

4. Stationary Source Increase in Permitted Emissions (SSIPE)

\[
\text{SSIPE} = \text{SSPE2} - \text{SSPE1}
\]

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>SSPE2 (lb/yr)</th>
<th>SSPE1 (lb/yr)</th>
<th>SSIPE (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{NO}_x )</td>
<td>20,147</td>
<td>0</td>
<td>20,147</td>
</tr>
<tr>
<td>( \text{SO}_x )</td>
<td>8,849</td>
<td>0</td>
<td>8,849</td>
</tr>
<tr>
<td>( \text{PM}_{10} )</td>
<td>10,506</td>
<td>0</td>
<td>10,506</td>
</tr>
<tr>
<td>CO</td>
<td>115,081</td>
<td>0</td>
<td>115,081</td>
</tr>
<tr>
<td>VOC</td>
<td>25,866</td>
<td>0</td>
<td>25,866</td>
</tr>
<tr>
<td>( \text{NH}_3 )</td>
<td>12,878</td>
<td>0</td>
<td>12,878</td>
</tr>
</tbody>
</table>
5. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Per section VII.D.3 of this document, this facility is not an existing Major Source for any pollutant. Therefore, this project will not trigger an SB-288 major modification.

6. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

Per section VII.D.3 of this document, this facility is not an existing Major Source for any pollutant. Therefore, this project will not trigger a Federal major modification.

VIII. COMPLIANCE

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,

b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,

c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or

d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.
N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)

Per section VII.C.2 of this document, PE2 from each unit for NOx, SOx, PM10, CO and VOC emissions is greater than 2.0 lb/day. The facility's CO emissions are less than 200,000 lb/yr. Therefore, BACT is triggered for NOx, SOx, PM10 and VOC emissions. Note that ammonia emissions from each SCR system will be greater than 2.0 lb/day. The District policy is not to evaluate BACT on the emission control equipment.

The District conducts project-specific analyses for boilers similar to the ones proposed in this project. BACT for similar units for steady-state operating scenarios would be:

\[
\begin{align*}
\text{NO}_x & : \quad 7 \text{ ppmvd} @ 3\% \text{ O}_2 \text{ (or less)} \quad - \text{Achieved-in-practice} \\
& \quad 5 \text{ ppmvd} @ 3\% \text{ O}_2 \text{ (or less)} \quad - \text{Technologically feasible}
\end{align*}
\]

\[
\begin{align*}
\text{SO}_x, \text{ PM}_{10}, \text{ VOC} & : \text{Use of PUC quality natural gas}
\end{align*}
\]

Pursuant to the attached Top-Down BACT Analysis in Appendix II of this document, BACT has been satisfied with the following:

\[
\begin{align*}
\text{NO}_x & : \quad 5 \text{ ppmvd} @ 3\% \text{ O}_2 \text{ (or less)} \\
\text{SO}_x, \text{ PM}_{10}, \text{ VOC} & : \text{Use of PUC quality natural gas}
\end{align*}
\]

N-8887-3-0: Distiller beet receiving, storage and processing operations
Per section VII.C.2 of this document, PE2 is not greater than 2.0 lb/day for PM10 emissions. Thus, BACT is not triggered for this operation.

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-7-0: Yeast cream separation operation
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation

**Process Emissions:**
Per section VII.C.2 of this document, the potential emissions are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered for VOC emissions. Note that the equipment under these permits is vented to a common vent gas scrubber.

**Fugitive Emissions:**
Per section VII.C.2 of this document, the potential emissions from each individual component including valve, flange, pumps, etc. are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered for any of these components.
N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-8-0: Fermented wash holding tank

Process Emissions:
Per section VII.C.2 of this document, the potential emissions from each unit are greater than 2.0 lb/day for VOC emissions. Therefore, each unit triggers BACT for VOC emissions.

BACT guideline 4.12.4 requires achieving at least 99.5% emissions control for VOC emissions. There is no technologically feasible or alternate basic equipment listed in the guideline.

TRE has proposed to reduce 99.5% of VOC emissions using CO2 scrubber with high pressure condenser system. Therefore, BACT requirements are satisfied.

N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)

Process Emissions:
Per section VII.C.2 of this document, the potential emissions from each unit are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered.

Fugitive Emissions:
Per section VII.C.2 of this document, the potential emissions from each individual component including valve, flange, pumps, etc. are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered for any of these components.

N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)

Process Emissions:
Per section VII.C.2 of this document, the potential emissions are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered.

Fugitive Emissions:
Per section VII.C.2 of this document, the potential emissions from each individual component including valve, flange, pumps, etc. are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered for any of these components.

N-8887-16-0: Beet pulp processing, and loadout operations

Per section VII.C.2 of this document, the potential emissions are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered.

Note that RTO will be used as emission control equipment. The District policy is not to require BACT on emission control equipment. Therefore, BACT evaluation is not performed for the RTO.
N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)

Storage emissions:
Per section VII.C.2 of this document, the potential emissions are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered.

Connection emissions:
Per section VII.C.2 of this document, the potential emissions are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered.

Fugitive emissions:
Per section VII.C.2 of this document, the potential emissions from each individual component including valve, flange, pumps, etc. are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered for any of these components.

N-8887-18-0: Denatured ethanol loading operation

Loading operation:
Per section VII.C.2 of this document, the potential emissions are greater than 2.0 lb/day for VOC emissions. Thus, this operation triggers BACT for VOC emissions.

BACT guideline 7.1.10 requires the use of bottom loading with dry break couplers and vapor collection vented to a thermal incinerator or flare with destruction efficiency of at least 99% for VOC emissions. There is no technologically feasible or alternate basic equipment listed in this guideline.

The applicant has proposed to load denatured ethanol into tanker trucks using bottom loading technique using dry break couplers. VOC from tanker trucks will be routed to the vapor control system capable of reducing at least 99% of VOC emissions. Therefore, BACT requirements are satisfied for this operation.

Connection Emissions:
Per section VII.C.2 of this document, the potential emissions are not greater than 2.0 lb/day for VOC emissions. Thus, BACT is not triggered for this operation.

N-8887-19-0: Cooling tower

Per section VII.C.2 of this document, the potential emissions are greater than 2.0 lb/day for PM$_{10}$ emissions. Thus, this operation triggers BACT for PM$_{10}$ emissions.

BACT guideline 8.3.10 lists the use of drift eliminator as technologically feasible option.
The applicant has proposed to use high efficiency drift eliminators for the proposed cooling tower. Therefore, BACT requirements are satisfied for this unit.

**N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine**

Per section VII.C.2 of this document, the potential emissions for NOx and CO emissions are greater than 2.0 lb/day. The facility's CO emissions are less than 200,000 lb/yr. Therefore, BACT is triggered for NOx emissions only.

BACT guideline 3.1.1 requires the use of latest EPA Tier certification level for applicable horsepower range, i.e., Tier 2 certification for the engine equal to or greater than 750 bhp.

The applicant has proposed to install Tier 2 engine. Thus, BACT requirements are satisfied.

**N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine**

Per section VII.C.2 of this document, PE2 for NOx and CO emissions are greater than 2.0 lb/day. The facility's CO emissions are less than 200,000 lb/yr. Therefore, BACT is triggered for NOx emissions only.

BACT guideline 3.1.4 lists certified NOx emissions of 6.9 g/bhp-hr or less as an achieved-in-practice standard. No technologically or alternate basic equipment listed in the guideline.

The applicant has proposed to install the engine with certified NOx level of 2.7 g/bhp-hr or less. Thus, BACT requirements are satisfied.

Note that a detailed "Top-Down" BACT analysis is prepared for each unit that triggered BACT in the above section. This analysis is presented in Appendix II of this document.

**B. Offsets**

Offsets are examined on pollutant-by-pollutant basis. The following table summarizes SSPE2, offset thresholds, and whether or not offsets are triggered.

<table>
<thead>
<tr>
<th>Category</th>
<th>NOx</th>
<th>SOx</th>
<th>PM_{10}</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSPE2</td>
<td>20,147</td>
<td>8,849</td>
<td>10,506</td>
<td>115,081</td>
<td>25,866</td>
</tr>
<tr>
<td>Offset Thresholds</td>
<td>20,000</td>
<td>54,750</td>
<td>29,200</td>
<td>200,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Offsets Triggered?</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

From the above table, offsets are triggered for NOx and VOC emissions.
Section 4.7.2 of Rule 2201 states that for pollutants with SSPE1 less than the emission offset threshold levels, emission offsets shall be provided for all increases in Stationary Source emissions above the offset trigger levels, calculated as the differences of SSPE2 and the offset trigger level, plus all increases in Cargo Carrier emissions (ICCE). Thus,

$\text{EOQ} = (\text{SSPE2} - \text{Offset Threshold level}) + \text{ICCE}$

There is no increase in Cargo Carrier emissions from this project. Thus,

$\text{EOQ} = \text{SSPE2} - \text{Offset Threshold level}$

$= 20,147 \text{ lb-NOx/yr} - 20,000 \text{ lb-NOx/yr}$

$= 147 \text{ lb-NOx/yr (36.75 lb-VOC/qtr)}$

The applicant has identified to use NOx credits from ERC certificate S-4362-2. The original reduction at Elk Hills, Tupman, California, which is more than 15 miles away from the TRE's plant. Therefore, the total emission offsets including the distance offset ratio would be 221 lb-NOx/yr ($147 \text{ lb-NOx/yr x 1.5}$).

The applicant has committed to purchase NOx credits from ERC certificate S-4362-2 in the amount of 55 lb for 1st quarter, 55 lb for 2nd quarter, 55 lb for 3rd quarter and 56 lb for 4th quarter. Therefore, offset requirements are satisfied.

Section 4.7.2 of Rule 2201 states that for pollutants with SSPE1 less than the emission offset threshold levels, emission offsets shall be provided for all increases in Stationary Source emissions above the offset trigger levels, calculated as the differences of SSPE2 and the offset trigger level, plus all increases in Cargo Carrier emissions (ICCE). Thus,

$\text{EOQ} = (\text{SSPE2} - \text{Offset Threshold level}) + \text{ICCE}$

There is no increase in Cargo Carrier emissions from this project. Thus,

$\text{EOQ} = \text{SSPE2} - \text{Offset Threshold level}$

$= 25,866 \text{ lb-VOC/yr} - 20,000 \text{ lb-VOC/yr}$

$= 5,866 \text{ lb-VOC/yr}$

The applicant has identified to use VOC credits from ERC certificate S-4384-1. The original reduction at Rosedale Hwy, Bakersfield, California, which is more than 15 miles away from the TRE's plant. Therefore, the total emission offsets including the distance offset ratio would be 8,799 lb-VOC/yr ($1.5 \times 5,866 \text{ lb-VOC/yr}$).
The applicant has committed to purchase VOC credits from ERC certificate S-4384-1 in the amount of 2,200 lb for each quarter. Therefore, offset requirements are satisfied.

C. Public Notification

District Rule 2201, section 5.4, requires a public notification for the affected pollutants from the following types of projects:

- New Major Sources
- Major Modifications (SB-288 or Federal)
- New emission units with a PE>100 lb/day of any one pollutant
- Modifications with SSPE1 below an Offset threshold and SSPE2 above an Offset threshold on a pollutant-by-pollutant basis
- New stationary sources with SSPE2 exceeding Offset thresholds
- Any permitting action with a SSIPE exceeding 20,000 lb/yr for any one pollutant

Per section VII.D.3 of this document, this facility is a new Major Source. Thus, this project triggers a 30-day public notice.

The public notice documents, i.e., this application review along with the draft permit, will be submitted to the California Air Resources Board (CARB) and the Environmental Protection Agency (EPA) Region 9. The documents will also be posted on the Air District's website for review and comment. A public notice will be published in the local newspaper, Stockton Record, soliciting comments from the public as well as any other interested parties. The public comment period will last 30 days from the date of publication.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions to a level at or below the emissions associated with the maximum design capacity.

N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)

Startup/shutdown:
- During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320]

• The startup duration shall not exceed 2.0 hours per day. [District Rules 2201, 4306 and 4320]

• The shutdown duration shall not exceed 0.5 hour per day. [District Rules 2201, 4306 and 4320]

• During startup and shutdown period, heat input rate shall be less than or equal to 10% of the maximum heat input rate to the boiler. [District Rule 2201]

• During startup, NOx emissions shall not exceed 39.5 ppmvd @ 3% O2 or 0.048 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rule 2201 and 40 CFR Part 60.13(h)(1)]

• During shutdown, NOx emissions shall not exceed 39.5 ppmvd @ 3% O2 or 0.048 lb/MMBtu. [District Rule 2201]

• During startup, CO emissions shall not exceed 65 ppmvd @ 3% O2 or 0.048 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rule 2201 and 40 CFR Part 60.13(h)(1)]

• During shutdown, CO emissions shall not exceed 65 ppmvd @ 3% O2 or 0.048 lb/MMBtu. [District Rule 2201]

Steady state:
• Except during startup and shutdown, NOx emissions shall not exceed 5 ppmvd @ 3% O2 or 0.0062 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]

• Except during startup and shutdown, CO emissions shall not exceed 50 ppmvd @ 3% O2 or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]

Startup/shutdown/steady state:
• SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]

• PM10 emissions shall not exceed 0.003 lb/MMBtu. [District Rule 2201]

• VOC emissions shall not exceed 10 ppmvd @ 3% O2 or 0.0042 lb/MMBtu, referenced as methane. [District Rule 2201]
• NH₃ emissions from the SCR system shall not exceed 10 ppmvd @ 3% O2. [District Rule 2201]

Note that one hour averaging period is established based on the monitoring requirements in section 40 CFR Part 60.13(h)(1), which requires that all data for the continuous monitoring system (other than opacity meters) to be reduced to 1-hour averages for the time period as defined in section 60.2 (i.e. one-hour period means any 60-minute period commencing on the hour).

N-8887-3-0: Distiller beet receiving, storage and processing operations
• The amount of material received shall not exceed any of the following limits: 5,500 tons/day and 1.73 million tons/year. [District Rule 2201]

• PM₁₀ emissions from material receiving, storage and processing operations shall not exceed 5.5E-05 pounds per ton of material received. [District Rule 2201]

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-7-0: Yeast cream separation operation
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation

Process Emissions:
The equipment under above permits will be vented a vent gas scrubber capable of reducing at least 95% of the VOC emissions. Therefore, the following conditions will be included in each permit.

• The combined controlled VOC emissions rate from the yeast preparation and pre-fermenter tanks, yeast cream separation operation, distillation operation, process condensate tank and vinasse processing, storage and loadout operation all served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

• The ethanol production rate shall not exceed any of the following limits: 135,000 gallons/day and 40 million gallons/year (12-month rolling basis). [District Rule 2201]

Fugitive Emissions:
N-8887-4-0: Yeast preparation and pre-fermentation operation
• Fugitive VOC emissions from component leaks shall not exceed 1.0 pounds during any one day. [District Rule 2201]
N-8887-7-0: Yeast cream separation operation
- Fugitive VOC emissions from component leaks shall not exceed 0.3 pounds during any one day. [District Rule 2201]

N-8887-9-0: Distillation operation
- Fugitive VOC emissions from component leaks shall not exceed 7.6 pounds during any one day. [District Rule 2201]

N-8887-10-0: 30,000 gallon Condensate tank
- Fugitive VOC emissions from component leaks shall not exceed 0.4 pounds during any one day. [District Rule 2201]

N-8887-11-0: Vinasse processing, storage and loadout operation
- Fugitive VOC emissions from component leaks shall not exceed 0.2 pounds during any one day. [District Rule 2201]

N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-8-0: Fermented wash holding tank

Process Emissions:
The equipment under above permits will be vented to a CO2 scrubber with high pressure condenser system to recover CO2 gas. The system is expected to reduce at 99.5% of VOC emissions. Therefore, the following conditions will be included in each permit.

- The combined controlled VOC emissions rate from the fermentation tanks, a beerwell tank, and fermented wash holding process tank all served by the CO2 scrubber with condenser system shall not exceed 0.0626 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

- The ethanol production rate shall not exceed any of the following limits: 135,000 gallons/day and 40 million gallons/year (12-month rolling basis). [District Rule 2201]

Fugitive Emissions:
N-8887-5-0: Fermentation Operation
- Fugitive VOC emissions from component leaks shall not exceed 4.1 pounds during any one day. [District Rule 2201]

N-8887-6-0: Beerwell tank
- Fugitive VOC emissions from component leaks shall not exceed 1.2 pounds during any one day. [District Rule 2201]
N-8887-8-0: Fermented wash holding tank  
- Fugitive VOC emissions from component leaks shall not exceed 1.0 pounds during any one day. [District Rule 2201]

N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)  
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)  
Process Emissions:  
- VOC emissions from this tank shall not exceed 1.7 lb/day, equivalent to a maximum throughput rate of 135,000 gallons/day of 200-proof ethanol through this tank. [District Rule 2201]

- The total VOC emissions from permits N-8887-12 and -13 shall not exceed 502 lb/year, equivalent to a total maximum throughput rate of 40 million gallons/year of 200-proof ethanol through both tanks in a rolling 12-month period. [District Rule 2201]

Fugitive Emissions:  
- Fugitive VOC emissions from component leaks shall not exceed 1.0 pounds during any one day. [District Rule 2201]

N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)  
Process Emissions:  
- VOC emissions shall not exceed 1.4 lb/day and 415 lb/year, equivalent to a maximum throughput rate of 135,000 gallons/day of 200 proof ethanol and 40 million gallons/year of 200-proof ethanol in a rolling 12-month period. [District Rule 2201]

Fugitive Emissions:  
- Fugitive VOC emissions from component leaks shall not exceed 1.0 pounds during any one day. [District Rule 2201]

N-8887-16-0: Beet pulp processing, storage and loadout operations  
Process Emissions:  
- VOC emissions at the RTO discharge stack serving the enclosed hopper and truck loadout operation shall not exceed 0.0022 pounds per ton of wet pulp loaded into the trucks. [District Rule 2201]

- The wet beet pulp loadout rate shall not exceed 326 tons/day and 104,320 tons/year (12 month rolling period). [District Rule 2201]

Natural gas combustion in RTO:  
- Emissions from natural gas combustion in the RTO shall not exceed any of the following limits: 0.0059 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu,
0.0076 lb-PM10/MMBtu, 0.036 lb-CO/MMBtu, and 0.004 lb-VOC/MMBtu. [District Rule 2201]

N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
Storage emissions:
Storage of gasoline in a pressure vessel is not expected to release any VOC emissions. Therefore, no DELs are established for this operation.

Connection emissions:
• VOC emissions shall not exceed 0.0148 pounds per hose disconnect, equivalent to 10 mL gasoline per disconnect. [District Rule 2201]
• The number of gasoline hose disconnects performed during gasoline truck unloading operation shall not exceed 10 disconnects per day and 500 disconnects per year. [District Rule 2201]

Note that the number of disconnects were determined using the amount of gasoline proposed to received/removed from the storage tank, and the capacity of the tanker trucks at this time. Therefore, to validate the number of disconnects, the following condition will be included in the permit:
• The amount of gasoline removed from this storage tank for making denatured ethanol shall not exceed 50,000 gallons/day and 2.5 million gallons/year. [District Rule 2201]

Fugitive Emissions:
• Fugitive VOC emissions from component leaks shall not exceed 1.1 pounds during any one day. [District Rule 2201]

N-8887-18-0: Denatured ethanol loading operation
Loading operation:
• Controlled VOC emissions rate from the VRU serving the loading racks shall not exceed 0.08 lb/1,000 gal of denatured ethanol loaded. This VOC emission rate is based on a six hour rolling average. [District Rule 2201]
• Denatured ethanol loadout rate shall not exceed any of the following limits: 230,000 gallons/day and 42 million gallons/year (12-month rolling basis). [District Rule 2201]

Connection emissions:
• VOC emissions shall not exceed 0.0173 pounds per hose disconnect, equivalent to 10 mL of denatured ethanol discharge per disconnect. [District Rule 2201]
• The number of hose disconnects during loadout operation shall not exceed 23 disconnects per day and 4,200 disconnects per year. [District Rule 2201]

Fugitive Emissions:
• Fugitive VOC emissions from component leaks shall not exceed 1.7 pounds during any one day. [District Rule 2201]

N-8887-19-0: Cooling tower
• PM$_{10}$ emissions shall not exceed 2.4 pounds in any one day. [District Rule 2201]

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
• Emissions from this engine shall not exceed any of the following: 4.93 g-NO$_x$/bhp-hr, 0.13 g-CO/bhp-hr, 0.01 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115 and 40 CFR Part 60.4205(b)(2)]
• PM$_{10}$ emissions shall not exceed 0.02 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR Part 60.4205(b)(2)]
• Only CARB certified diesel fuel containing no more than 0.0015% sulfur by weight shall be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR 60.4207(b)]

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
• Emissions from this engine shall not exceed any of the following: 2.7 g-NO$_x$/bhp-hr, 0.9 g-CO/bhp-hr, 0.1 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR 60.4205(c)]
• PM$_{10}$ emissions shall not exceed 0.1 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR 60.4205(c)]
• Only CARB certified diesel fuel containing no more than 0.0015% sulfur by weight shall be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR 60.4207(b)]
E. Compliance Assurance

**Source Testing:**
N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)

**Startup/shutdown testing for NOx and CO:**
To verify the proposed NOx and CO emissions during startup and shutdown period, the applicant will be required to conduct a source test to measure NOx and CO emissions within 60-days of startup under this permit. CEMS relative accuracy evaluation will also be required during startup and shutdown testing.

**Steady state testing:**
To verify the proposed NOx, VOC, CO and NH₃ emissions, the initial source testing will be required to be completed within 60-days of startup of the unit.

Source testing to measure NOx, CO, NH₃ emissions is required to be conducted at least once every twelve months. Successful compliance demonstration on two consecutive twelve-month periodic tests may defer the following source test up to thirty-six months. This testing frequency is consistent with the requirements in the boiler Rules 4306 and 4320 and other permitted boilers equipped with SCR systems.

Note that PM₁₀ testing is not required since the potential emissions are estimated using a generally accepted emission factor.

N-8887-3-0: Distiller beet receiving, storage and processing operations
The potential emissions are determined using generally accepted emission factors. Therefore, source testing is not required.

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-7-0: Yeast cream separation operation
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation

**Process emissions:**
To verify the proposed VOC emission rate at the discharge stack of the vent gas scrubber, the applicant will be required to conduct a source test within 60 days of initial startup and at least once every 12-month thereafter.

Note that during the initial test, TRE will be required to establish parameters including but not limited to water flow rate through the scrubber, water temperature, or any other parameters recommended by the scrubber manufacturer. These parameters will be included in the permit to ensure ongoing compliance with the permitted VOC limits.
Fugitive emissions:
No source testing is required. Note periodic inspection under Leak Detection and Repair (LDAR) program will ensure on-going compliance with the fugitive emissions from the components associated with this permit unit.

N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-8-0: Fermented wash holding tank

Process emissions:
To verify the proposed VOC emission rate at the discharge stack of the CO2 scrubber and high pressure condenser system, the applicant will be required to conduct a source test within 60 days of initial startup and at least once every 12-month thereafter.

Note that during the initial test, TRE will be required to establish parameters including but not limited to water flow rate through the scrubber, water temperature, or any other parameters recommended by the scrubber manufacturer. These parameters will be included in the permit to ensure on-going compliance with the permitted VOC limits.

Fugitive emissions:
No source testing is required. Note periodic inspection under LDAR program will ensure on-going compliance with the fugitive emissions from the components associated with this permit unit.

N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)
The potential VOC emissions from these units are determined using EPA's Tanks 4.0.d program, which is generally accepted method for estimating VOC emissions from similar units. Therefore, source testing is not considered for these units.

N-8887-16-0: Beet pulp processing and loadout operations

Process emissions:
To verify VOC emissions at the discharge stack of the RTO, the applicant will be required to conduct a source test within 60 days of initial startup and at least once every 12-month thereafter. In addition, the applicant will be required to establish a minimum RTO temperature would demonstrate on-going compliance with the permitted limits.

Natural gas Combustion in the RTO:
The proposed NOx emissions factor for the RTO on natural gas combustion are extremely low (= 5 ppmv @ 3% O2), as oppose to the typical 30-40 ppmv @ 3% O2, NOx emissions from the RTO. Furthermore, NOx and CO are inversely
related to each other (i.e., NOx decreases CO increases and vice versa). Therefore, one-time, both NOx and CO testing will be required.

N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)

Storage emissions:
This storage tank is not expected to release any VOC emissions; therefore, source testing is not required.

Connection emissions:
There are no source testing requirements for this class and category in the District's Source Testing Policy, APR 1705. Therefore, source testing is not required under Rule 2201.

Fugitive emissions:
No source testing is required. Note periodic inspection under LDAR program will ensure on-going compliance with the fugitive emissions from the components associated with this permit unit.

N-8887-18-0: Denatured ethanol loading operation

Loading operation:
The discharge stack of vapor recovery and control system will be required to be sampled within 60 days of initial startup and at least once every 12-month thereafter during denatured ethanol loading process. This test will verify compliance with the VOC emission rate and the VOC control efficiency of the control equipment.

Connection Emissions:
There are no source testing requirements for this class and category in the District's Source Testing Policy, APR 1705. Therefore, source testing is not required under Rule 2201.

Fugitive emissions:
No source testing is required. Note periodic inspection under LDAR program will ensure on-going compliance with the fugitive emissions from the components associated with this permit unit.

N-8887-19-0: Cooling tower
The applicant will be required to perform a blowdown water sample analysis by independent laboratory within 60 days of initial startup and quarterly thereafter. This sample analysis along with water circulation rate, drift rate of 0.0005%, and operating time will be required to be used to demonstrate compliance with the permitted emission limits.
N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
Pursuant to District Policy APR-1705, source testing is not required for emergency standby IC engines to demonstrate compliance with Rule 2201.

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
Pursuant to District Policy APR-1705, source testing is not required for emergency standby IC engines to demonstrate compliance with Rule 2201.

Monitoring:
N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)
For each boiler, the applicant has proposed to monitor NOx, CO and O2 concentrations using a CEMS system. NH3 slip from the SCR system will be measured using Draeger tubes on a monthly basis.

N-8887-3-0: Distiller beet receiving, storage and processing operations
Monitoring is not required.

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-7-0: Yeast cream separation operation
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation

Process Emissions:
The applicant will be required to continuously monitor surrogate parameters established during the initial test to ensure on-going compliance with VOC emissions.

Fugitive Emissions:
The applicant will be required to inspect all components at least once every calendar quarter.

N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-8-0: Fermented wash holding tank
The applicant will be required to continuously monitor surrogate parameters established during the initial test to ensure on-going compliance with VOC emissions.

Fugitive Emissions:
The applicant will be required to inspect all components at least once every calendar quarter.
Tracy Renewable Energy
N-8887-1 to '-'14 and '-'16 to '-'21, N-1132068

N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)

Process Emissions:
The applicant will be required to monitor throughput rate to ensure compliance with the permitted VOC emissions.

Fugitive Emissions:
The applicant will be required to visually inspect the newly constructed tank, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling of the tank. Subsequent to this the applicant will be required to inspect the tank, through the manholes, roof hatches, or other openings 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.

In addition, the applicant will be required to inspect all fugitive components associated with the tank (e.g., valves, flanges, pumps, etc.) at least once every calendar quarter.

N-8887-16-0: Beet pulp processing, and loadout operations

Process emissions:
The RTO chamber temperature is required to be monitored continuously to ensure compliance with the permitted limits.

Natural gas combustion in RTO:
After successful compliance demonstration with NOx emissions, no additional monitoring is required.

N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)

Storage emissions:
The applicant will be required to monitor throughput rate to ensure compliance with the permitted VOC emissions.

Connection emissions:
The facility will also be required to measure the average organic liquid drainage (mL) from three consecutive disconnects within 60-days of initial startup and quarterly thereafter to unloading operation is appropriately conducted without exceeding the maximum spillage rate of 10 mL per disconnect.

Fugitive Emissions:
The applicant will be required to inspect all components at least once every calendar quarter.
N-8887-18-0: Denatured ethanol loading operation

**Loading operation:**
The applicant will be required to monitor throughput rate to ensure compliance with the permitted VOC emissions.

In addition, discharge from the VRU stack will be required to be sampled at least once a month during denatured ethanol loading operation using FID, PID, or other District-approved VOC detection device.

**Connection emissions:**
The facility will also be required to measure the average organic liquid drainage (mL) from three consecutive disconnects within 60-days of initial startup and quarterly thereafter to unloading operation is appropriately conducted without exceeding the maximum spillage rate of 10 mL per disconnect.

**Fugitive Emissions:**
The applicant will be required to inspect all components at least once every calendar quarter.

N-8887-19-0: Cooling tower
The applicant will be required to monitor water re-circulation rate (gallons/day). The circulation rate is required to be used with quarterly total dissolved solids (ppm) to verify compliance with the daily emission limit.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
No monitoring is required to demonstrate compliance with Rule 2201.

**Recordkeeping:**

N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)
The applicant will be required to keep all records including source testing records, CEMS calibration records, CEMS RATA, RAA and CGA records, CEMS data showing NOx, CO and O2 concentration, and NH3 emissions records. Each of these records is required to be kept for a period of at least 5 years from the date of such record.

N-8887-3-0: Distiller beet receiving, storage and processing operations
The applicant will be required to keep daily and annual records of the amount of the distiller beets received and processed through the system.
N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-7-0: Yeast cream separation operation
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation
The applicant will be required to keep all records including source testing records, scrubber parameter monitoring data, and ethanol production records and LDAR records. Each of these records is required to be kept for a period of at least 5 years from the date of such record.

N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-8-0: Fermented wash holding tank
The applicant will be required to keep all records including source testing records, scrubber parameter monitoring data, and ethanol production records and LDAR records. Each of these records is required to be kept for a period of at least 5 years from the date of such record.

N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)
The applicant will be required to keep all records including ethanol throughput records for each tank, initial and periodic tank inspection records and LDAR records. Each of these records is required to be kept for a period of at least 5 years from the date of such record.

N-8887-16-0: Beet pulp processing, storage and loadout operations
The applicant will be required to keep daily and annual records of the amount of beet pulp loaded in the trucks. Also, the applicant will be required to retain source testing records. Each of these records is required to be kept for a period of at least 5 years from the date of such record.

N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
The applicant will be required to keep records of daily and annual number of hose disconnects made, and LDAR records for quarterly inspections. Each of these records is required to be kept for a period of at least 5 years from the date of such record.

N-8887-18-0: Denatured ethanol loading operation
The applicant will be required to maintain source testing records, LDAR inspection records, and denatured ethanol throughput records. Each of these records is required to be kept for a period of at least 5 years from the date of such record.
The applicant will be required to maintain records of quarterly blowdown water sample analysis showing total dissolved solids content, daily water circulation rate, total operating time (hours/day) and daily PM\(_{10}\) emissions. Each of these records is required to be kept for a period of at least 5 years from the date of such record.

The applicant will be required to maintain monthly record of emergency and non-emergency hours of operation. Each of these records is required to be kept for a period of at least 5 years from the date of such record.

Reporting:

The applicant will be required to submit source test reports within 60 days after completing each test. Note that the applicant will also be required to submit CEMS reports on quarterly basis.

The applicant will not be required to report any records under Rule 2201.

The applicant will be required to submit source test reports within 60 days after completing each test. These initial testing report will be used to establish surrogate parameters that will ensure on-going compliance with VOC emissions.

The applicant will be required to submit source test reports within 60 days after completing each test. These initial testing reports will be used to establish surrogate parameters that will ensure on-going compliance with VOC emissions.
N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
N-8887-19-0: Cooling tower
N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
No reports are required to be submitted under Rule 2201.

N-8887-16-0: Beet pulp processing, storage and loadout operations
N-8887-18-0: Denatured ethanol loading operation
The applicant will be required to submit source test reports within 60 days after completing each test.

F. Ambient Air Quality Analysis (AAQA)

Pursuant to Section 4.14 of Rule 2201, an AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard.

The District's Technical Services Division conducted the required analysis. The following table shows the summary of AAQA:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>1 Hour</th>
<th>3 Hours</th>
<th>8 Hours</th>
<th>24 Hours</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>Pass</td>
<td>X</td>
<td>Pass</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NO\textsubscript{x}</td>
<td>Pass\textsuperscript{1}</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Pass</td>
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<tr>
<td>SO\textsubscript{x}</td>
<td>Pass</td>
<td>Pass</td>
<td>X</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Pass\textsuperscript{2}</td>
<td>Pass\textsuperscript{2}</td>
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<tr>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>Pass\textsuperscript{2}</td>
<td>Pass\textsuperscript{2}</td>
</tr>
</tbody>
</table>

\textsuperscript{1}The project was compared to the 1-hour NO\textsubscript{2} National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures. The Ozone Limiting Method (OLM) or Plume Volume Molar Ratio Method (PVMRM) was used in accordance with the District's Assessment of Non-Regulatory Options in AERMOD – Specifically OLM and PVMRM.

\textsuperscript{2}The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

The criteria modeling runs for the proposed project indicates that the emissions will not cause or significantly contribute to a violation of the State or National Ambient Air Quality Standards.

G. Compliance Certification

Per Section 4.15 of Rule 2201, "Compliance Certification" and "Alternative Siting Analysis" is required for any project, which constitutes a New Major Source or a Federal Major Modification.
Compliance Certification
The owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. The compliance certification from the facility is included in Appendix VI of this document.

Alternative Siting Analysis
The proposed project will treat effluent water from Tracy’s WWTP. This project will be located adjacent to the Tracy’s WWPP and therefore, it is expected to result in the least possible environmental impact. Alternative sites would involve construction of underground piping and various support structures such as tanks pumping stations that are expected to result in a much greater environmental impact.

Rule 2410 Prevention of Significant Deterioration

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM, PM_{10}

Step 1:
The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not. Per section VII.D.3 of this document, this facility is not an existing major source for PSD.

Step 2:
I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.
PSD Major Source Determination: Potential to Emit (tons/year)

<table>
<thead>
<tr>
<th>Category</th>
<th>NO₂</th>
<th>VOC</th>
<th>SO₂</th>
<th>CO</th>
<th>PM</th>
<th>PM₁₀</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PE from N-8887-1 to '14 and '16 to '21</td>
<td>10.1</td>
<td>12.9</td>
<td>4.4</td>
<td>57.5</td>
<td>5.3</td>
<td>5.3</td>
</tr>
<tr>
<td>PSD Major Source threshold</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>New PSD Major Source?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

As shown above, the facility is not a new PSD major source. Thus, Rule 2410 does not apply.

**Rule 2520 Federally Mandated Operating Permits**

TRE exceeds Major Source threshold for NOx and VOC emissions. Therefore, this facility is subject to the requirements of this rule. This facility will be issued a Title V permit under separate project. The facility will be required to submit Title V application within 12 months of commencing operation. The following condition will be included in each permit:

- The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

Compliance is expected with this Rule.

**Rule 4001 New Sources 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 applicable Subparts are discussed below:

*40 CFR Part 60 Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*

**Section 60.40b - Applicability and delegation of authority**
This subpart applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBtu/hr. The proposed boilers will be constructed after the cut-off date of June 19, 1984. Therefore, these units are subject to the requirements of this subpart.
Section 60.42b - Standard for sulfur dioxide (SO₂)
Section 60.42b(k)(1)(2) states that the units firing only very low sulfur oil, gaseous fuel, a mixture of these fuels with any other fuels with a potential SO₂ emission rate of 0.32 lb/MMBtu heat input or less are exempt from the SO₂ emissions in paragraph (k)(1) of this section.

The boilers will be fired on natural gas fuel containing a maximum of 1.0 gr-S/100 scf, which equates to 0.00285 lb/MMBtu. Therefore, these units are exempt from the SO₂ emissions in paragraph (k)(1) of this section. The following condition will be included in permits N-8887-1-0 and '-2-0:

- The unit shall only be fired on PUC-quality natural gas with a sulfur content of no greater than 1.0 grains (gr) of sulfur per 100 standard cubic feet (scf) of natural gas. [District Rules 2201 and 4320, 40 CFR 60.42b(k)(1)(2)]

Section 60.43b - Standard for particulate matter (PM)
This section does not list PM emission standards for natural gas fired steam generating units.

Section 60.44b - Standard for nitrogen oxides (NOₓ)
Section 60.44b(a) states that except as provided in paragraphs (k) and (l) of this section, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NOₓ (expressed as NO₂) in excess of 0.1 lb/MMBtu for low heat release rate (≤ 70,000 Btu/hr-ft³ of furnace volume) or 0.2 lb/MMBtu for high release rate (> 70,000 Btu/hr-ft³ of furnace volume).

Section 60.44b(h) states for the purposes of paragraph (i) of this section, the NOₓ standards under this section apply at all times including periods of startup, shutdown, or malfunction.

Section 60.44b(i) state that compliance with an applicable limit is determined on a 30-day rolling average basis.

The new boilers will be permitted to emit up to 5 ppmvd NOₓ @ 3% O₂ during steady-state (39.5 ppmvd NOₓ @ 3% O₂ during startup/shutdown period). These limits are significantly less than compared to the 82 ppmvd @ 3% O₂ (equates to 0.1 lb/MMBtu) NOₓ limit for low heat release rate units. Thus, compliance is expected with this section.
The following condition will be included in permits N-8887-1-0 and ‘-2-0:

- For 40 CFR Part 60 Subpart Db purpose, NOx emissions shall not exceed 0.1 lb/MMBtu for low heat release units (70,000 Btu/hr-ft³ of furnace volume or less) and 0.2 lb/MMBtu for high heat release units (greater than 70,000 Btu/hr-ft³ of furnace volume) on a 30-day rolling average basis. NOx standard shall apply at all times including periods of startup, shutdown, or malfunction. The permittee shall maintain record of the furnace volume, which is defined as the volume bounded by the front furnace wall where the burner is located, the furnace side waterfall, and extending to the level just below or in front of the first row of convection pass tubes. [40 CFR 60.44b(a), 60.44b(h), 60.44b(i)]

Section 60.45b - Compliance and performance test methods and procedures for sulfur dioxide
Section 60.45b(j) states the owner or operator of an affected facility that only combusts very low sulfur oil, natural gas, or a mixture of these fuels with any other fuels not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts per section 60.49b(r) which requires the supplier to certify that the gaseous fuel meets the definition of natural gas. In lieu of receipts, the owner or operator may develop and submit a site-specific fuel analysis for review and approval per information in section 60.49b(r)(2).

This facility will use PUC quality natural gas supplied by PG&E, which has a transportation agreement to deliver gas with maximum sulfur content of 1.0 gr/100 scf (actual: 0.3 to 0.5 gr/100 scf, based on source testing)\(^\text{16}\). The following condition will be included in permits N-8887-1-0 and ‘-2-0:

- The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)]

Section 60.46b - Compliance and performance test methods and procedures for particulate matter and nitrogen oxides
Section 60.46b(e) states compliance with the NOx emission limits shall be conducted using continuous system for monitoring NOx under section 60.48(b).

\(^{16}\text{The sulfur content in PUC regulated natural gas is taken from District Policy APR-1720.}\)
Section 60.46b(e)(1) states NOx from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NOx emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. The following condition will be included in permits N-8887-1-0 and '-2-0:

- For the initial compliance test under 40 CFR Part 60 Subpart Db, NOx emissions shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the NOx emission standard under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft³ of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft³ of furnace volume)). The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [40 CFR 60.46b(e)(1)]

Section 60.46b(e)(4) states that following the initial performance test, the owner or operator of an affected facility that has a heat input of 250 MMBtu/hr or less and that combust natural gas, distillate oil, gasified coal, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NOx standards in §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NOx emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NOx emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days. The following condition will be included in permits N-8887-1-0 and '-2-0:

- Following the initial compliance test, the operator shall upon request determine compliance with the NOx standard under 40 CFR 60.44 (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft³ of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft³ of furnace volume)) through the use of a 30-day performance test. During periods when performance tests are not requested, NOx emissions data collected pursuant to §60.48b(g)(1) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NOx emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(4)]
§ 60.47b Emission monitoring for sulfur dioxide
Per section 60.48(b)(f), the proposed units are not subject to the requirements of this section if the owner or operator maintains fuel records described in §60.49b(r). Refer to the discussion under section 60.45b above.

§ 60.48b Emission monitoring for particulate matter and nitrogen oxides
Section 60.48b(g) states that the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less, and that has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, gasified coal, or any mixture of these fuels, greater than 10 percent (0.10) shall:

(1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section; or

(2) Monitor steam generating unit operating conditions and predict NOx emission rates as specified in a plan submitted pursuant to §60.49b(c).

TRE has chosen to comply with 60.48b(b), (c), (d), (e)(2), (e)(3), and (f) of this section.

Section 60.48b(b) states that except as provided under paragraphs (g), (h) and (i), the owner or operator of an affected facility subject to a NOx standard under §60.44b shall comply with either paragraphs (b)(1) or (b)(2) of this section.

(1) Install, calibrate, maintain, and operate CEMS for measuring NOx and O2 (or CO2) emissions discharged to the atmosphere, and shall record the output of the system; or

(2) If the owner or operator has installed a NOx emission rate CEMS to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of §60.49b. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.

The applicant has proposed to install, calibrate, maintain, and operate CEMS for each boiler to measure and record NOx, CO and O2 concentrations. Therefore, compliance is expected with this section. The following condition will be included in permits N-8887-1-0 and '-2-0:
• The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx, CO and O2 concentrations. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(1)]

Section 60.48b(c) states that the CEMS required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. The following condition will be included in permits N-8887-1-0 and '-2-0:

• The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)]

Section 60.48b (d) states that the 1-hour average NOx emission rates measured by the continuous NOx monitor required by paragraph (b) of this section and required under §60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(h)(2). The following condition will be included in permits N-8887-1-0 and '-2-0:

• The 1-hour average NOx emission rates measured by the continuous NOx monitor shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(h)(2). [40 CFR 60.48b(d)]

Section 60.48b(e)(2) states that the procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. Span value for natural gas is 500 ppm NOx. The following condition will be included in permits N-8887-1-0 and '-2-0:

• The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS. Span value for NOx shall be 500 ppmv. [40 CFR 60.48b(e)(2)]

Section 60.48b(f) states that when NOx emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments,
emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. The following condition will be included in permits N-8887-1-0 and '-2-0:

- When NOx data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)]

Section 60.48b(j) states that the owner or operator of an affected facility that meets the conditions in either paragraph (j)(1), (2), (3), (4), (5), or (6) of this section is not required to install or operate a continuous opacity metering system (COMS) if:

(1) The affected facility uses a PM CEMS to monitor PM emissions; or

(2) The affected facility burns only liquid (excluding residual oil) or gaseous fuels with potential SO2 emissions rates of 26 ng/J (0.060 lb/MMBtu) or less and does not use a post-combustion technology to reduce SO2 or PM emissions. The owner or operator must maintain fuel records of the sulfur content of the fuels burned, as described under §60.49b(r); or

(3) The affected facility burns coke oven gas alone or in combination with fuels meeting the criteria in paragraph (j)(2) of this section and does not use a post-combustion technology to reduce SO2 or PM emissions; or

(4) The affected facility does not use post-combustion technology (except a wet scrubber) for reducing PM, SO2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (j)(4)(i) through (iv) of this section; or

(i) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (j)(4)(i)(A) through (D) of this section.
(A) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(B) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(C) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in §60.13(h)(2).

(D) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(ii) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(iii) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MBtu or less.

(iv) You must record the CO measurements and calculations performed according to paragraph (j)(4) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MBtu, and the date, time, and description of the corrective action.

(5) The affected facility uses a bag leak detection system to monitor the performance of a fabric filter (baghouse) according to the most recent requirements in section §60.48Da of this part; or
(6) The affected facility burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

The boilers will be fired on natural gas fuel with 1.0 gr-S/100 scf or less (equates to 0.00285 lb-S02/MMBtu); therefore, COMS is not required.

§ 60.49b Reporting and recordkeeping requirements
Section 60.49b(b) states that the owner or operator of each affected facility subject to the SO2, PM, and/or NOx emission limits under §§60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in Appendix B of this part. The following condition will be included in permits N-8887-1-0 and ‘-2-0:

- The owner or operator shall submit the performance test data and the performance evaluation of the CEMS using performance specification 2 (PS 2) for NOx, PS 4A for CO, and PS3 for O2 in 40 CFR Part 60 Appendix B. [40 CFR 60.49b(b)]

Section 60.49(d)(1) states the owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. The following condition will be included in permits N-8887-1-0 and ‘-2-0:

- The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)]

- The owner or operator shall maintain records of the annual capacity factor on a monthly basis. The annual capacity factor shall be determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR 60.49b(d)(1)]

Section 60.49(g) states that except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NOx standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:
(1) Calendar date;

(2) The average hourly NO\textsubscript{x} emission rates (expressed as NO\textsubscript{2}) (ng/J or lb/MMBtu heat input) measured or predicted;

(3) The 30-day average NO\textsubscript{x} emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

(4) Identification of the steam generating unit operating days when the calculated 30-day average NO\textsubscript{x} emission rates are in excess of the NO\textsubscript{x} emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

The following condition(s) will be included in permits N-8887-1-0 and '2-0:

- The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NO\textsubscript{x} and CO emission rates (expressed as NO\textsubscript{2}) (ppmvd @ 3% O\textsubscript{2} and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NO\textsubscript{x} emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
(4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft³ of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft³ of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NOx and CO emission rates are in excess of the NOx and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)]

Section 60.49b(h) states that the owner or operator is required to submit excess emission reports for any excess emissions that occurred during the reporting period. Item 4 in the requirement 60.49b(g), given in the above condition, would satisfy an on-going compliance with this section.

Section 60.49b(i) states the owner or operator of any affected facility subject to the continuous monitoring requirements for NOx under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section. The condition under section 60.49b(g) would satisfy an on-going compliance with this section.

Section 60.49b(o) requires that all records shall be maintained by the owner or operator for a period of 2 years following the date of such record.

The District will require the owner or operator to maintain records of required monitoring data and support information for a period of at least five years from the date of data entry of each record. The following condition(s) will be included in permits N-8887-1-0 and '-2-0:
• The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)]

Section 60.49b(v) states the owner or operator of an affected facility may submit electronic quarterly reports for SO\textsubscript{2} and/or NO\textsubscript{x} and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. 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. The following condition(s) will be included in permits N-8887-1-0 and '-2-0:

• The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)]

Section 60.49b(w) states the reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

The reports are required to be submitted on a quarterly basis. Therefore, compliance is expected with this section. Please refer to the condition under section 60.49b above.

Compliance is expected with this Regulation.

§60.110b: Applicability and designation of affected facility
This subpart applies to each storage vessel with a capacity greater than 75 m³ (19,813 gal) that is used to store a volatile organic liquid for which construction, reconstruction, or modification is commenced after July 23, 1984. A storage vessel may be exempt from the requirements of this subpart as long as it qualifies §60.110b(b) or §60.110b(d), or meet alternate means of compliance in §60.110b(e).

§60.110b(b) states that this subpart does not apply to storage vessels with a capacity greater than or equal to 151 m³ (39,890 gal) storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) (0.5 psi) or with a capacity greater than or equal to 75 m³ (19,813 gal) but less than 151 m³ (39,890 gal) storing a liquid with a maximum true vapor pressure less than 15.0 kPa (2.2 psi).

§60.110b (d) states that this subpart does not apply to the following:

(1) Vessels at coke oven by-product plants.
(2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
(3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.
(4) Vessels with a design capacity less than or equal to 1,589.874 m³ used for petroleum or condensate stored, processed, or treated prior to custody transfer.
(5) Vessels located at bulk gasoline plants.
(6) Storage vessels located at gasoline service stations.
(7) Vessels used to store beverage alcohol.
(8) Vessels subject to subpart GGGG of 40 CFR part 63.

§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:
Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors;

Subsurface caverns or porous rock reservoirs; or

Process tanks.

Further, 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.

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-7-0: Yeast cream separation operation
N-8887-8-0: Fermented wash holding tank
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation

The tanks proposed under the above permits are process tanks. These tanks are not intended to store volatile organic liquids rather an intermediate product in the ethanol production process. Therefore, these tanks 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.

N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
Per §60.110b(d)(2), pressure vessels designed to operate in excess of 204.9 kPa (29.7 psi) and without emissions to the atmosphere are not subject to the requirements of this subpart.

Per applicant, this tank will be a pressure vessel and will not have any emissions under normal operating conditions. Therefore, this tank is not subject to the requirements of this subpart.
These tanks will be used to store ethanol with TVP of 0.7 psi. Therefore, each of these tanks is subject to the requirements of this subpart. The requirements are as follows:

§60.112b: Standard for volatile organic compounds (VOC)
This section requires to equip each storage vessel with systems listed in §60.112b(a)(1) (a fixed roof in combination with an internal floating roof) or §60.112b(a)(2) (an external floating roof) or 60.112b(a)(3) (a closed vent system and control device) or 60.112b(a)(4) (a system equivalent to (a)(1), (a)(2), or (a)(3)).

The storage tanks are internal floating roof tanks. Therefore, these tanks must meet the requirements in §60.112b(a)(1).

§60.112b(a)(1)(i) requires that 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 floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely 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. The following condition will ensure compliance with this section:

- 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 Section 5.4.3, 40 CFR 60.112b(a)(1)(i)]

§60.112b(a)(1)(ii) requires that the internal floating roof shall be equipped with one of the closure devices provided in §60.112b(a)(1)(ii)(A), §60.112b(a)(1)(ii)(B), or §60.112b(a)(1)(ii)(C).

Each tank will have dual Ultraseal seal system which will meet the requirements in §60.112b(a)(1)(ii)(B). The equipment description of each permit will include the use

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17 Note that §60.110b(d)(4) would not apply to these tanks as they don't qualify the definition of Petroleum (Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal) under this subpart.
of dual wiper seals. Therefore, compliance is expected with this section. In addition, the following conditions will ensure compliance with this section:

- 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. [District Rule 4623 and 40 CFR 60.112b(a)(1)(ii)]

§60.112b(a)(1)(iii) requires that each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. The following condition will ensure compliance with this section:

- 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 Section 5.5.2.1.1, 40 CFR 60.112b(a)(1)(iii)]

§60.112b(a)(1)(iv) requires that 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. The following condition will ensure compliance with this section:

- 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 Section 5.5.2.1.2, 40 CFR 60.112b(a)(1)(iv)]

§60.112b(a)(1)(v) requires that 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 condition will ensure compliance with this section:

- 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 Section 5.5.2.1.3, 40 CFR 60.112b(a)(1)(v)]
§60.112b(a)(1)(vi) requires that 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 condition will ensure compliance with this section:

- 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 Section 5.5.2.1.4, 40 CFR 60.112b(a)(1)(vi)]

§60.112b(a)(1)(vii) requires that 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 following condition will ensure compliance with this section:

- 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 Section 5.5.2.1.5, 40 CFR 60.112b(a)(1)(vii)]

§60.112b(a)(1)(viii) requires that 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 following condition will ensure compliance with this section:

- 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 Section 5.5.2.1.6, 40 CFR 60.112b(a)(1)(viii)]

§60.112b(a)(1)(ix) requires that each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. The following condition will ensure compliance with this section:

- Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]

§60.113b: Testing and procedures

§60.113b(a)(1) requires that the owner or operator shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with volatile organic liquid. If there are holes, tears or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before
filling the storage vessel. The following condition will ensure compliance with this section:

- The owner or operator 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, Section 6.1.4.1, 40 CFR 60.113b(a)(1)]

§60.113b(a)(2) requires that the owner or operator shall visually inspect the internal floating roof and the primary seal, or the secondary and the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the volatile organic liquid inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. The following conditions will ensure compliance with this section:

- The owner or operator shall visually inspect, through the manholes, roof hatches, or other opening 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 rule 4623. [District Rule 4623 Section 6.1.4.2, 40 CFR 60.113b(a)(2)]

- If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify
a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(2)]

§60.113b(a)(5) requires that the owner or operator to notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by §60.113b(a)(1) of this section to afford the Administrator the opportunity to have an observer present. The following condition will ensure compliance with this section:

- The owner or operator shall notify the District in writing at least 30 days prior to conducting the visual inspection of the storage vessel, so the District has the opportunity to have an observer present. [40 CFR 60.113b(a)(5)]

§60.115b: Reporting and recordkeeping requirements

§60.115b(a)(1) requires that the owner or operator shall furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3) (i.e. initial startup notification).

§60.115b(a)(2) requires that the owner or operator shall keep a record of each inspection performed as required by §60.113b(a)(1) and (a)(2). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

§60.115b(a)(3) requires that the owner or operator shall furnish a report to the Administrator within 30 days if any of the condition described in §60.113b(a)(2) are detected during annual visual inspection required by §60.113b(a)(2). The report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of the defect and date the repair was made.

The following condition will ensure compliance with §60.115b(a)(1) through (a)(3):

- The owner or operator shall furnish a report that describes the control equipment and certifies that the control equipment meet the tank specification listed in this permit as part of initial startup notification. [40 CFR part 60.115b(a)]

- The owner or operator 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 the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623 Section 6.3.5, 60.115b(a)(2), 60.115b(a)(3)]

§60.116b: Monitoring of operations
§60.116b(a) requires the owner or operator to keep copies of all records for at least two years. However, Rule 4623, requires to keep all records are required to be kept for a period of at least five year. Therefore, compliance is expected with this section. The following condition will ensure compliance with this section:

- The owner or operator shall keep all records on-site for a period of at least five years. These records shall be made available for District inspection upon request. [District Rules 2201 and 4623, and 40 CFR 60.116b(a)]

§60.116b(b) requires the owner or operator to keep records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The following condition will ensure compliance with this section:

- The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(b)]

§60.116b(c) requires that except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ (39,890 gallons) storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa (0.5 psia) or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. The following condition will ensure compliance with this section:
• The owner or operator shall maintain records of the volatile organic liquid stored, the period of storage, and TVP of that volatile organic liquid during the respective storage period. TVP shall be determined using the data on the Reid vapor pressure (highest tank sample results) and actual storage temperature. [District Rule 2201 and 40 CFR 60.116b(c)]

§60.116b(e)(1) refers to true vapor pressure requirements for vessels operated above or below ambient temperatures. Since these tanks are operated at ambient temperature, this section is not applicable.

§60.116b(e)(3) requires that for liquids other than crude oil or refined petroleum products, the vapor pressure may be obtained from standard reference texts, or determined by ASTM D2879-83, 96, or 97 (incorporated by reference—see §60.17), or measured by an appropriate method approved by the Administrator, or calculated by an appropriate method approved by the Administrator. The following condition will ensure compliance with this section:

• Maximum true vapor pressure may be obtained from standard reference texts, or determined by ASTM D2879, or other District approved alternative methods. [40 CFR 60.116b(e)(3)]

Compliance is expected with this regulation.

40 CFR Part 60 Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufactures of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines (i.e., starting 2009 year model for 175≤HP≤750).
(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
The proposed engine meet the criteria in § 60.4200 (a)(2)(i). Therefore, this engine is subject to the requirements of this subpart.

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
The proposed engine meet the criteria in § 60.4200 (a)(2)(ii) and in § 60.4200 (a)(4). Therefore, this engine is subject to the requirements of this subpart.

§60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. Section 62.4202(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(2) For engines with a maximum engine power greater than or equal to 37 kW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
The proposed engine is rated at 1,502 bhp. Therefore, section 62.4202(a)(2) will apply.

40 CFR 89.112(a), Table 1 lists the following standards for engine rated greater than 560 kW (>724 hp) for model year 2006: 6.4 g/kW-hr (4.8 g/bhp-hr) for NMHC+NOx, 3.5 g/kW-hr (2.5 g/bhp-hr) for CO and 0.2 g/kW-hr (0.1 g/bhp-hr) for PM.

Furthermore, 40 CFR 89.113 has smoke emission standard and requires that the exhaust opacity from CI non-road engine must not exceed 20% during the acceleration mode, 15% during the lugging mode, and 50% during the peaks in either the acceleration or lugging modes. These standards are presumed to be checked during engine certification process; therefore, continued compliance is expected, and no additional conditions are necessary in the permit.

The following condition will ensure compliance with this section:

- Emissions from this engine shall not exceed any of the following: 4.93 g-NOx/bhp-hr, 0.13 g-CO/bhp-hr, 0.01 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR 60.4205(b)(2)]

- PM_{10} emissions shall not exceed 0.02 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR 60.4205(b)(2)]

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
The proposed engine's displacement is less than 30 liters per cylinder. Therefore, section 62.4202(c) will apply.
Table 4 of this subpart lists the following standards for engine rated 175 bhp to less than 300 bhp (175≤HP<300) for model year 2009+:

<table>
<thead>
<tr>
<th>Standard</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMHC+NOx</td>
<td>4.0 g/kW-hr</td>
</tr>
<tr>
<td>PM</td>
<td>0.20 g/kW-hr</td>
</tr>
</tbody>
</table>

The following conditions will ensure compliance with this section:

- Emissions from this engine shall not exceed any of the following: 2.7 g-NOx/bhp-hr, 0.9 g-CO/bhp-hr, 0.1 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR 60.4205(c)]
- PM₁₀ emissions shall not exceed 0.1 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR 60.4205(c)]

§60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

40 CFR 80.510(b) states that beginning June 1, 2010, except as otherwise specifically provided in this subpart, all NR and LM diesel fuel is subject to the following per-gallon standards:

1. Sulfur content.
   (i) 15 ppm maximum for non-road diesel fuel.
   (ii) 500 ppm maximum for locomotive diesel fuel.

2. Cetane index or aromatic content, as follows:
   (i) A minimum cetane index of 40; or
   (ii) A maximum aromatic content of 35 volume percent.

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18 In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.
Tracy Renewable Energy
N-8887-1 to '14 and '16 to '21, N-1132068

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
Each of the proposed CI ICE has a displacement of less than 30 liters per
cylinder (2.675 liter per cylinder for N-8887-20-0, and 1.133 liter per cylinder for
N-8887-21-0).

Each of these engines will be required to use CARB certified diesel containing no
more than 15 ppmv sulfur by weight. Further, the CARB diesel fuel specification
requires no more than 10 v% of aromatic hydrocarbon content
(http://www.arb.ca.gov/enf/fuels/dieselspecs.pdf). The following condition will
ensure compliance with this section:

• Only CARB certified diesel fuel containing no more than 0.0015% sulfur by
  weight shall be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40
  CFR 60.4207(b)]

§60.4208 What is the deadline for importing or installing stationary CI ICE
produced in previous model years?

(a) After December 31, 2008, owners and operators may not install stationary
  CI ICE (excluding fire pump engines) that do not meet the applicable
  requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary
  CI ICE with a maximum engine power of less than 19 KW (25 HP)
  (excluding fire pump engines) that do not meet the applicable requirements
  for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-
  emergency stationary CI ICE with a maximum engine power of greater than
  or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet
  the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-
  emergency stationary CI ICE with a maximum engine power of greater than
  or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not
  meet the applicable requirements for 2012 model year non-emergency
  engines.

(e) After December 31, 2012, owners and operators may not install non-
  emergency stationary CI ICE with a maximum engine power of greater than
  or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that
  do not meet the applicable requirements for 2011 model year non-
  emergency engines.
(f) After December 31, 2016, owners and operators may not install nonemergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install nonemergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

The proposed emergency engines are year 2014 model. Therefore, these engines do not meet any criteria in the above section.

§60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a
backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

Instead of verifying whether or not emergency engines meets the standards applicable to non-emergency engines, each engine will be required to be equipped with non-resettable hour meter. Note that none of these engines is equipped with diesel particulate filter to comply with the emissions standards in this subpart.

The following condition will ensure compliance with this section:

- This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702, 17 CCR 93115, and 40 CFR 60.4209(a)]

§60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

The following condition will ensure compliance with this section:

- 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 60.4211(a)]

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards
specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
The equipment description of each engine lists tier of certification (e.g., Tier-2, Tier 3, etc.). Further, each permit will contain the emission limits associated with the tier certification. Therefore, compliance is expected with this section.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator
may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
The proposed engine will be limited to operate for 50 hours per year during non-emergency situations. The following condition will ensure compliance with this section:

- This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 4201 and 4702, 17 CCR 93115, and 40 CFR 60.4211(f)]

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
The proposed engine will be limited to operate for 100 hours per year during non-emergency situations. The following condition will ensure compliance with this section:

- This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 4102 and 4702, 17 CCR 93115, and 40 CFR 60.4211(f)]

§60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.
N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

Instead of verifying whether or not emergency engines meet the standards applicable to non-emergency engines, each of the proposed engine will be required to keep records hours of operation during emergency and non-emergency scenarios. Therefore, compliance is expected with this section.

The following conditions ensure compliance with this section:

- The owner or operator shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. 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 Rule 4702, 17 CCR 93115, and 40 CFR 60.4214(b)]

Compliance is expected with this regulation.


Pursuant to Section 60.480a(a), the provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry for which construction, reconstruction, or modification occurs after November 7, 2006.

Pursuant to Section 60.481a, 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.

This facility will be constructed after the cutoff date, and ethanol is considered a synthetic organic chemical, the requirements of this subpart are applicable to this facility.

Section 60.480a(a)(2) states that the group of all equipment (defined in §60.481a) 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.

Except for the liquefaction process, all the equipment at this facility will be in VOC service. Therefore, the requirements of 40 CFR 60, Subpart VVa will be applicable to these processes. The applicable standards are listed below:

§60.482-1a: Standards (general)
§60.482-2a: Standards: Pumps in light liquid service
§60.482-3a: Standards: Compressors
§60.482-4a: Standards: Pressure relief devices in gas/vapor service
§60.482-5a: Standards: Sampling connection systems
§60.482-6a: Standards: Open-ended valves or lines
§60.482-7a: Standards: Valves in gas/vapor service and in light liquid service
§60.482-8a: Standards: Pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service
§60.482-9a: Standards: Delay of repair
§60.482-10a: Standards: Closed vent systems and control devices
§60.482-11a: Standards: Connectors in gas/vapor service in light liquid service

The following requirements will be included in the permits N-8887-4-0 through -14 and -16 through -18:

*****STANDARDS: GENERAL*****

• Each owner or operator subject to the provisions of 40 CFR Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

• Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

• An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

• If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or
operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

- Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]

*****STANDARDS: PUMPS IN LIGHT LIQUID SERVICE*****

- Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

- Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

- Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

- If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

- Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(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 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

*****STANDARDS: COMPRESSORS*****

- 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(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 60.482-3a(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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

- Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(l)(1) and (2). [40 CFR 60.482-3a(l) 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 60.482-3a(a) through (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 60.482-3a(a) through (e), and (h). [40 CFR 60.482-3(j)]

*****STANDARDS: PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE*****

- 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 60.485a(c). [40 CFR 60.482-4a(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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(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 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

*****STANDARDS: SAMPLING CONNECTION SYSTEMS*****

- 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the
requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

*****STANDARDS: OPEN-ENDED VALVES OR LINES*****

- 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 60.482-1a(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 60.482-6a(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 60.482-6a(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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

*****STANDARDS: VALVES IN GAS/VAPOR SERVICE IN LIGHT LIQUID SERVICE*****

- 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]

• Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

• Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

• Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

*****STANDARDS: PUMPS, VALVES AND CONNECTORS IN HEAVY LIQUID SERVICE AND PRESSURE RELIEF DEVICES IN LIGHT LIQUID OR HEAVY LIQUID SERVICE*****

• If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

- When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

*****STANDARDS: CLOSED VENT SYSTEMS AND CONTROL DEVICES*****

- For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(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 ppmv, 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 °C. [40 CFR 60.482-10a(c)]

- Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

- Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

- Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 60.482-10a(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 60.482-10a(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 60.482-10a(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 60.482-10a(f)(1)(i) and
(f)(2). [40 CFR 60.482-10a(i)]

- Any parts of the closed vent system that are designated, as described in 40
CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection
requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the
requirements specified in 40 CFR 60.482-10a(l)(1) and (l)(2). [40 CFR 60.482-
10a(l)]

- Any parts of the closed vent system that are designated, as described in 40
CFR 60.482-10a(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 60.482-10a(k)(1) through (k)(3). [40 CFR
60.482-10a(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 60.486a(c); 4) For each inspection conducted in accordance with 40
CFR 60.485a(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 60.482-10a(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 60.482-10a(l)]
• Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

STANDARDS: CONNECTORS IN GAS/VAPOR SERVICE AND IN LIGHT LIQUID SERVICE

• The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

• Except as allowed in 40 CFR 60.482-1a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

• The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

• When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

• Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise
Page - 98

applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]

- For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]

- Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

*****ALTERNATIVE STANDARDS FOR VALVES - ALLOWABLE PERCENTAGE OF VALVES LEAKING*****

- The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

- 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 VVa. [40 CFR 60.484a(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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)]

- The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

- The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(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, E168, E169 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 60.485a(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. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 °C (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

- Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

*****RECORDKEEPING REQUIREMENTS - SUBPART VVa*****

- An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

- The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

- When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in §60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

- When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaiired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

- The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]

- The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 40 CFR 60.482-4a, and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any
corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

- The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

- The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(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 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(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 60.480a(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 60.486a(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 60.486a(j)]
The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

*****REPORTING REQUIREMENTS*****

The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]

The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of §60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]
• An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(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 VVa 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 60.487a(e)]

• The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

Compliance is expected with this subpart.


Pursuant to Section 60.610(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 and no further discussion is required.

And


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 NNN (Distillation Processes) and Subpart RRR (Reactor Processes) are applicable to facilities involved in the synthesis of organic chemicals using petroleum based feedstocks and not biological fermentation processes.

TRE will produce ethanol by fermenting the sugars extracted from distiller beets with yeast inoculum. This process can be considered a biological fermentation process. Therefore, the requirements of 40 CFR Part 60 Subpart NNN and Subpart RRR are not applicable to this facility and no further discussion is required.

40 CFR Part 60, Subpart XX: Standards of Performance for Bulk Gasoline Terminals

Pursuant to Section 60.500(a), the provisions of this subpart apply to loading racks at bulk gasoline terminals that deliver liquid product into gasoline delivery trucks.

Section 60.501 defines Bulk Gasoline Terminal as any gasoline facility that receives gasoline by pipeline, ship, or barge, and has a gasoline throughput greater than 75,700 liters per day.

This facility does not receive gasoline by pipeline, ship, or barge, so it does not meet the definition of Bulk Gasoline Terminal. Therefore, this facility is not subject to the requirements of this Subpart.

Rule 4002 National Emission Standards for Hazardous Air Pollutants


§ 63.6585 Am I subject to this subpart?

This subpart applies to owners and operators of stationary reciprocating internal combustion engines (RICE) operated at a major or area source of Hazardous Air Pollutant (HAP) emissions.
Section (b) states a major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

Section (c) states an area source of HAP emissions is a source that is not a major source.

Per worksheet in Appendix III of this document, this facility is not a major source of HAP emissions. This facility is an area source for HAP emissions.

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) Existing stationary RICE

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) 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.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) New stationary RICE

(i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.
(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

Each of these engines meet the criteria under section 63.6590(a)(2)(iii) discussed above. Therefore, these engines are subject to the requirements of this subpart.

(c) Stationary RICE subject to Regulations under 40 CFR Part 60

An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart III for compression ignition engines or 40 CFR part 60 subpart JJJJ for spark ignition engines. No further requirements apply for such engines under this part.

(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.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

These are new reciprocating internal combustion engines (RICE) that will be located at an area source for HAP emissions. The units are subject to
requirements in 40 CFR part 60 Subpart III (discussed previously). Therefore, these engines are not subject to any additional requirements under this subpart.

Compliance is expected with this subpart.

**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 Ringelmann 1 or equivalent to 20% opacity. The following condition will be included in each permit:

- 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]

Compliance is expected with this rule.

**Rule 4102  Nuisance**

Section 4.0 prohibits discharge of air contaminants, which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as result of these operations provided the equipment is well maintained. The following condition will be listed in each permit:

- No air contaminant shall be released into the atmosphere, which causes a public nuisance. [District Rule 4102]

**California Health & Safety Code 41700**

District Policy APR 1905 - Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

Per Risk Management Review Summary in Appendix IV of this document, the acute and chronic indices are below 1.0 and the cancer risk associated with the project is greater than 1.0 in a million, but less than 10 in a million. In accordance with the District's Risk Management Policy, the project is approved with Toxic Best Available Control Technology (T-BACT). To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:
N-8887-1-0 through 14-0 & '-16-0 through '-18-0
No special conditions are required.

N-8887-20-0
• 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]

• \( \text{PM}_{10} \) emissions shall not exceed 0.02 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR 60.4205(b)(2)]

• This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 4102 and 4702, 17 CCR 93115, and 40 CFR 60.4211(f)]

N-8887-21-0
• 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]

• \( \text{PM}_{10} \) emissions shall not exceed 0.1 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR 60.4205(b)(2)]

• This engine shall be operated only for testing and maintenance of the engine, 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", 2002 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 4102 and 4702, 17 CCR 93115, and 40 CFR 60.4211(f)]

Note that T-BACT is triggered for \( \text{PM}_{10} \) emissions from 237 bhp diesel-fueled fire pump engine under permit N-8887-21.

T-BACT Guidance
Per District Policy APR 1905 (3/2/2001), in order to control emissions of hazardous air pollutants to the maximum level achievable, applicants must apply Toxic Best Available Control Technology (T-BACT) to each new and modified
emissions units with a greater than deminimus increase in cancer risk\textsuperscript{19} or a greater than deminimus increase in non-cancer risk\textsuperscript{20}. T-BACT is the most stringent limitation or control technique for hazardous air pollutants of the following:

(1) Has been achieved in practice for such emissions unit and class of source; or

(2) Is contained in any State Implementation Plan approved by the Environmental Protection Agency for such emissions unit category and class of source. A specific limitation or control technique shall not apply if the owner or operator of the proposed emissions unit demonstrates to the satisfaction of the APCO that such limitation or control technique is not presently achievable; or

(3) Is contained in any Federal Standard promulgated pursuant to FCAA Section 111 (NSPS) or Section 112 (MACT) for such emissions unit category and class of source; or

(4) Is any other emission limitation or control technique, including process and equipment changes of basic or control equipment, found by the APCO to be technologically feasible for such class or category of sources or for a specific source, and cost effective as determined by the District.

The District considers T-BACT to be equivalent to BACT. The proposed engine triggered T-BACT for the PM\textsubscript{10} emissions.

BACT guideline 3.1.4 for emergency diesel IC engine driving a fire pump is used to address T-BACT. The guideline requires achieving 0.1 g-PM\textsubscript{10}/bhp-hr (or less) emissions.

**T-BACT Analysis**

Based on detailed T-BACT analysis in Appendix V of this document, the proposed engine is certified to achieve the required PM\textsubscript{10} standard. Thus, the engine complies with the T-BACT requirements.

Compliance is expected with this Rule.

\textsuperscript{19} A deminimus increase in cancer risk is an increase in risk of one per million, as determined in section VIII of District Policy 1905.

\textsuperscript{20} A deminimus increase in non-cancer risk is an increase in the hazard index of one, as determined in Section VII of District Policy 1905.
Rule 4201  Particulate Matter Concentration

Section 3.0 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)

It is assumed that PM emitted from the boilers is emitted as PM$_{10}$. Thus,

$$PM\left(\frac{gr}{dscf}\right) = \left(\frac{0.003}{MMBtu}\right)\left(\frac{7,000}{lb - PM}\right)\left(\frac{gr - PM}{8,578}\right) = 0.002 \frac{gr}{dscf}$$

Since 0.002 gr/dscf is less than 0.1 gr/dscf, compliance with this Rule is expected.

N-8887-3-0: Distiller beet receiving, storage and processing operations

The PM emissions from this permit unit are fugitives. Therefore, these emissions cannot be measured using EPA Method 5, EPA Method 2 and EPA Method 4. Therefore, the processes covered under this permit are not subject to the requirements of this rule.

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-7-0: Yeast cream separation operation
N-8887-8-0: Fermented wash holding tank
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation
N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
N-8887-18-0: Denatured ethanol loading operation

The processes covered under these permit are not expected to release any particulate matter emissions. Therefore, these units are subject to the requirements of this rule.

N-8887-16-0: Beet pulp processing, storage and loadout operations

Process emissions:
The processes covered under this permit are not expected to release any PM emissions.
Natural gas combustion in the RTO:
It is assumed that PM emitted from the RTO is emitted as PM\(_{10}\). Thus,

\[
\text{PM}\left(\frac{\text{gr/dscf}}{}\right) = \frac{0.0076 \text{ lb - PM}}{\text{MMBtu}} \times \frac{7,000 \text{ gr - PM}}{\text{lb - PM}} = 0.0062 \frac{\text{gr}}{\text{dscf}}
\]

Since 0.0062 gr/dscf is less than 0.1 gr/dscf, compliance is expected with this Rule.

N-8887-19-0: Cooling tower
The exhaust flow rate is 45,000 acfm at 99°F. Moisture content in the exhaust is assumed to be 10%. Therefore, the exhaust particulate matter emission concentration at 60°F is:

\[
\text{PM}\left(\frac{\text{gr/dscf}}{}\right) = \frac{(0.1 \text{ lb - PM})}{\text{hr}} \times \frac{7,000 \text{ gr - PM}}{\text{lb - PM}} \times \frac{\text{hr}}{60 \text{ min}} = 0.0003 \frac{\text{gr - PM}}{\text{dscf}}
\]

Since 0.0003 gr/dscf is less than 0.1 gr/dscf, compliance is expected with this Rule.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
Per applicant, exhaust flow rate at maximum load is 8,065 acfm @ 890°F. The engine's exhaust moisture content is assumed to be 10%. Therefore, the exhaust particulate matter emission concentration at 60°F is:

\[
\text{PM}\left(\frac{\text{gr/dscf}}{}\right) = \frac{(0.067 \text{ lb - PM})}{\text{hr}} \times \frac{7,000 \text{ gr - PM}}{\text{lb - PM}} \times \frac{\text{hr}}{60 \text{ min}} = 0.003 \frac{\text{gr - PM}}{\text{dscf}}
\]

Since 0.0003 gr/dscf is less than 0.1 gr/dscf limit, compliance with this Rule is expected.

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
Per applicant, exhaust flow rate at maximum load is 1,189 acfm @ 986°F. The engine's exhaust moisture content is assumed to be 10%. Therefore, the exhaust particulate matter emission concentration at 60°F is:
Since 0.016 gr/dscf is less than 0.1 gr/dscf limit, compliance with this Rule is expected.

**Rule 4202 Particulate Matter - Emission Rate**

Section 4.0 of this rule, a person shall not discharge into the atmosphere PM emissions in excess of the maximum allowable limit \( E_{\text{Max}} \), in lb/hr, determined by the following specified in this Rule:

\[
E_{\text{Max}} = \begin{cases} 
3.59 \ P^{0.62} & \text{for Process weight (P) less than or equal to 30 tons/hr} \\
17.31 \ P^{0.16} & \text{for Process weight (P) greater than 30 tons/hr}
\end{cases}
\]

N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)
N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

Section 3.1, Process Weight is defined as the total weight of all materials introduced into any specific process, which process may cause any discharge into the atmosphere. Solid fuels charged shall be considered as part of the process weight, but liquid and gaseous fuels and combustion air shall not.

The boiler will be utilizing natural gas fuel and combustion air. Both of these are excluded from the "Process Weight" definition above, which form the basis for estimating allowable emission rate. Therefore, no further analysis is required.

N-8887-3-0: Distiller beet receiving, storage and processing operations
The proposed receiving rates are 350 tons/hr, 5,500 tons/day and 1.73 million tons/yr. Thus,

\[
E_{\text{Max}} = 17.31 \ (350)^{0.16} \\
= 44.2 \ \text{lb-PM/hr}
\]

\[
E_{\text{Proposed}} = 0.0193 \ \text{lb-PM/hr}
\]

Since the proposed emission rate \( E_{\text{Proposed}} \) is less than the maximum allowable rate \( E_{\text{Max}} \), compliance is expected with this rule.
N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-7-0: Yeast cream separation operation
N-8887-8-0: Fermented wash holding tank
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation
N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
N-8887-18-0: Denatured ethanol loading operation

The processes covered under these permit are not expected to release any particulate matter emissions. Therefore, these units are subject to the requirements of this rule.

N-8887-16-0: Beet pulp processing, storage and loadout operations

Process emissions:
The processes covered under this permit are not expected to release any PM emissions.

Natural gas combustion in the RTO:
Section 3.1, Process Weight is defined as the total weight of all materials introduced into any specific process, which process may cause any discharge into the atmosphere. Solid fuels charged shall be considered as part of the process weight, but liquid and gaseous fuels and combustion air shall not.

The boiler will be utilizing natural gas fuel and combustion air. Both of these are excluded from the "Process Weight" definition above, which form the basis for estimating allowable emission rate. Therefore, no further analysis is required.

N-8887-19-0: Cooling tower
The process weight of water being recirculated through this unit would be 9,799 tons/hour.

\[
E_{\text{Max}} = 17.31 \times (9,799)^{0.16} \\
= 75.3 \text{ lb-PM/hr}
\]

\[
E_{\text{Proposed}} = 0.1 \text{ lb-PM/hr}
\]

Since the proposed emission rate \( E_{\text{Proposed}} \) is less than the maximum allowable rate \( E_{\text{Max}} \), compliance is expected with this rule.

\[
21(39,165 \text{ gal/min})(8.34 \text{ lb/gal})(60 \text{ min/hr})(\text{ton/2,000 lb}) = 9,799 \text{ tons/hr}
\]
N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

Section 3.1, Process Weight is defined as the total weight of all materials introduced into any specific process, which process may cause any discharge into the atmosphere. Solid fuels charged shall be considered as part of the process weight, but liquid and gaseous fuels and combustion air shall not.

The engine will be utilizing diesel fuel and combustion air. Both of these are excluded from the "Process Weight" definition above, which form the basis for estimating allowable emission rate. Therefore, no further analysis is required.

**Rule 4301 Fuel Burning Equipment**

The provisions of this rule shall apply to any fuel burning equipment except air pollution control equipment which is exempted according to Section 4.0. Fuel burning equipment is defined as any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer.

The requirements of section 5.0 are as follows:

- Combustion contaminates (TSP) - Not to exceed 0.1 gr/dscf @ 12% CO₂ and 10 lb/hr.
- SO₅ emissions - Not to exceed 200 lb/hr
- NOₓ emissions - Not to exceed 140 lb/hr

N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)

For each boiler,

\[
PM \left( \frac{gr}{dscf} \right) = \frac{PM \text{ Emissions}}{\begin{pmatrix} \frac{lb - PM}{MMBtu} \times 7,000 \frac{gr - PM}{lb - PM} \\ \frac{\text{Factor}_{CO_2}}{dscf} \times \frac{100'}{12%} \end{pmatrix}} = \frac{\begin{pmatrix} 0.0076 \frac{lb - PM}{MMBtu} \\ 1,024.2 \frac{dscf}{MMBtu} \end{pmatrix} \times \begin{pmatrix} 7,000 \frac{gr - PM}{lb - PM} \\ 100'} {12%} \right) = 0.0062 \frac{gr - PM}{dscf}
\]
Per section VII.C.2 of this document,
PE = 1.33 lb-PM/hr (Percentage of PM as PM$_{10}$ in Exhaust: 100%)
PE = 0.5 lb-SOx/hr
PE = 1.68 lb-NOx/hr

Since the potential emissions are below the rule limits, compliance is expected with this rule.

N-8887-3-0: Distiller beet receiving, storage and processing operations
N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-7-0: Yeast cream separation operation
N-8887-8-0: Fermented wash holding tank
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation
N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
N-8887-18-0: Denatured ethanol loading operation
N-8887-19-0: Cooling tower
None of these permits involves fuel burning equipment; therefore, this rule does not apply to these units.

N-8887-16-0: Beet pulp processing, storage and loadout operations

*Natural gas combustion in the RTO:*

Section 4.1 states that the fuel burning equipment serving primarily as air pollution control equipment by using a combustion process to destroy air contaminants shall be exempt from the provisions of this rule. Therefore, the proposed RTO is exempt from the requirements of this rule.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

Each engine primarily produces power mechanically, i.e., the products of combustion push against the piston to rotate crank shaft that cause the shaft of the connected device to rotate. Because the engines primarily produce power by mechanical means, it does not meet the definition of fuel burning equipment (stated above). Therefore, Rule 4301 does not apply to the affected equipment and no further discussion is required.
Rule 4304  Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters

Pursuant to District Rules 4305 and 4306, Section 6.3.1, boilers are required to be tested at least once every 12-months. Gaseous fuel fired units demonstrating compliance on two consecutive 12-month source tests may defer the following source test for up to 36 months. During 36-month source testing interval, the operator shall tune the boiler according to section 5.2.1 (tune up at least once each calendar year by qualified technician in accordance with Rule 4304). Tune-ups required by Sections 5.2.1 and 6.3.1 do not need to be performed for units that operate and maintain an APCO approved CEMS or an APCO approved Alternate Monitoring System where the applicable emission limits are periodically monitored.

NOx, CO and O2 concentrations from the boilers (N-8887-1-0 and '-2-0) will be measured using CEMS; therefore, boiler tune-ups are not required.

Rule 4305  Boilers, Steam Generators and Process Heaters – Phase 2

Since the emission limits of District Rule 4306 and all other requirements are equivalent or more stringent than District Rule 4305 requirements, compliance with District Rule 4306 requirements will satisfy requirements of District Rule 4305.

Rule 4306  Boilers, Steam Generators and Process Heaters – Phase 3

Section 2.0 - Applicability
This rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than 5 million Btu per hour.

The heat input rate to each boiler is greater than 5 MMBtu/hr. Therefore, these units are subject to the requirements of this rule.

Section 5.0 - Requirements
Section 5.1.1 limits NOx and CO emissions to 9 ppmvd @ 3% O2 and 400 ppmvd @ 3% O2 respectively.

The applicant has proposed to achieve 5.0 ppmvd NOx @ 3% O2 (or less) and 50 ppmvd CO @ 3% O2 (or less) for each boiler. Therefore, compliance is expected with this section.

Section 5.2 lists the requirements for boilers limited to a heat input rate of less than 9 billion Btu per calendar year. These boilers are not limited to a heat input rate of less than 9 billion Btu per calendar year. Therefore, this section is not applicable to these units.
Section 5.3 states that the NO\textsubscript{x} and CO emission limits shall not apply to this unit during start-up and shutdown period provided that the duration of each start-up or each shutdown is not greater than 2.0 hours, and the emission control system is utilized during these periods. An operator may submit a request to allow more than two hours for each startup or each shutdown provided the operator meets all of the conditions specified in sections 5.3.3.1 to 5.3.3.3.

The proposed duration of each startup and shutdown will be 2.0 hours and 0.5 hour, respectively. Therefore, compliance is expected with this rule.

Section 5.4.1 requires the operator to install and maintain a non-resettable, totalizing mass or volumetric flow meter for the units, which simultaneously uses gaseous and liquid fuels and is subject to the requirements of Section 5.1. The applicant is proposing to use gaseous fuel only. Therefore, they are not required to install and maintain the meter due to this section.

Section 5.4.2 requires the operator to install and maintain an operational APCO approved Continuous Emissions Monitoring System (CEMS) for NO\textsubscript{x}, CO, and oxygen, or implement an APCO-approved Alternate Monitoring System. An APCO approved CEMS shall comply with the requirements of 40 Code of Federal Regulations (CFR) Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Part 60 Appendix B (Performance Specifications) and 40 CFR Part 60 Appendix F (Quality Assurance Procedures, and applicable provisions of Rule 1080 (Stack Monitoring).

The applicant has proposed to install CEMS for each boiler to monitor NO\textsubscript{x}, CO and O\textsubscript{2} emissions. The following conditions will be listed in permits N-8887-1 and '12:

- The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO\textsubscript{x}, CO and O\textsubscript{2} concentrations. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(2)]

- The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]

- The NO\textsubscript{x}, CO and O\textsubscript{2} CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2
(PS 2) for NOx, Appendix B PS 4A for CO, and Appendix B PS 3 for O2 or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]

- In accordance with 40 CFR Part 60, Appendix F, 5.1, NOx, CO and O2 CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320]

- The owner/operator shall perform a RATA for NOx, CO and O2 as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rules 1080, 2201, 4305, 4306 and 4320]

- APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320]

- The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]

- Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]

- The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. [District Rule 1080]

- Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080]

- The permittee shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative. [District Rule 1080]
The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NOx and CO emission rates (expressed as NO2) (ppmv @ 3% O2 and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NOx emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft3 of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft3 of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NOx and CO emission rates are in excess of the NOx and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)]

Section 5.5.1 states the operator of any unit have the option of complying with either the applicable heat input (lb/MMBtu) emission limits or the concentration (ppmv) emission limit. The applicant has proposed to comply with the concentrations (ppmv) limit. Therefore, compliance is expected with this section.

Section 5.5.2 requires 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. The following conditions will be listed in permits N-8887-1 and '-2:

• 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, 4306 and 4320]

Section 5.5.3 requires that all CEMS data shall be averaged over a period of 15-consecutive minutes to demonstrate compliance with the applicable emission limits in this rule. The following conditions will be listed in permits N-8887-1 and '-2:

• The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]

Section 5.5.4 requires emissions monitoring pursuant to Sections 5.4.2, 5.4.2.1, and 6.3.1 using a portable NOx analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings 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 readings evenly spaced out over the 15-consecutive-minute period. The applicant has proposed to use CEMS for measuring NOx, CO and O2 concentrations. Therefore, this section does not apply.

Section 5.5.5 requires that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, 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. The following conditions will be listed in permits N-8887-1 and '-2:

• 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, 4306 and 4320]

Section 6.0 – Administrative Requirements

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.3 shall be maintained for five calendar years and shall be made available to the APCO upon request. Failure to maintain records or information contained in the records that
demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule. The following conditions will be listed in permits N-8887-1 and -2:

- The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)]

Section 6.2 identifies the test methods for determining higher heating value of fuel, NOx, CO, O2, stack gas velocities, and stack gas moisture content. The following conditions will be listed on each permit. The following conditions will be listed in permits N-8887-1 and -2:

- 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]

- NOx emissions for source test purposes shall be determined using EPA Method 7E or CARB Method 100 on a ppmv basis. [District Rules 4305, 4306 and 4320]

- CO emissions for source test purposes shall be determined using EPA Method 10 or CARB Method 100. [District Rules 4305, 4306 and 4320]

- Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or CARB Method 100. [District Rules 4305, 4306 and 4320]

- VOC emissions for source test purpose shall be determined using EPA Method 18, 25A, or other District approved alternative method. [District Rule 2201]

In addition, the ammonia slip is required to be measured using BAAQMD Method ST-1B. The following conditions will be listed in permits N-8887-1 and -2:

- Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 2201]

Section 6.3.1 requires that this unit be tested to determine compliance with the applicable requirements of section 5.1 and 5.2.3 not less than once every 12 months. Units that demonstrate compliance on two consecutive 12-month source tests may defer the following 12-month source test for up to 36 months (no more than 30 days before or after the required 36-month source test date). During the 36-month source testing interval, the operator shall tune the unit in accordance with the provisions of Section 5.2.1, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer to ensure compliance with the applicable emission limits specified in Sections 5.1 or 5.2.3. Tune-ups required by Sections 5.2.1 and 6.3.1 do not need to be
performed for units that operate and maintain an APCO approved CEMS or an APCO approved Alternate Monitoring System where the applicable emission limits are periodically monitored.

NOx, CO and O2 concentrations will be measured using CEMS. Therefore, no periodic tune-ups are required. The following conditions will be listed in permits N-8887-1 and ‘-14 to ‘-21:

- Source testing to measure steady state NO\textsubscript{x}, CO, VOC and NH\textsubscript{3} emissions shall be conducted within 60-days of the initial startup. [District Rules 2201, 4305, 4306 and 4320]

- Source testing to measure NO\textsubscript{x}, CO and NH\textsubscript{3} emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 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 12 months. [District Rules 4305, 4306 and 4320]

Section 6.3.2 lists compliance testing procedure for units that represent a group of units. The applicant is not proposing any group testing; therefore, no further discussion is required.

Section 6.4 discusses emission control plan (ECP). The permit application for the proposed new boilers satisfies the requirements of the Emission Control Plan, as listed in Section 6.4 of District Rule 4306. No further discussion is necessary.

Section 7.0 – Compliance Schedule
This new boilers are expected to be operating in compliance with this rule after initial startup. Therefore, no further discussion is required.

Compliance is expected with this Rule.

Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters greater than 5.0 MMBtu/hr

Section 2.0 - Applicability
Section 2.0 states that this rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than 5 million Btu per hour.

The heat input rate to each boiler is greater than 5 MMBtu/hr. Therefore, these units are subject to the requirements of this rule.
Section 5.0 – Requirements

Section 5.1 states that an operator of a unit(s) subject to this rule shall comply with all applicable requirements of the rule and one of the following, on a unit-by-unit basis:

- Operate the unit to comply with the emission limits specified in Sections 5.2 and 5.4; or
- Pay an annual emissions fee to the District as specified in Section 5.3 and comply with the control requirements specified in Section 5.4; or
- Comply with the applicable Low-use Unit requirements of Section 5.5.

The facility had chosen to comply with the emission limits specified in Section 5.2 and 5.4. These limits are summarized below:
The applicant has proposed the following limits for each boiler:

NOx: 5.0 ppmvd @ 3% O2 (or less);
CO: 50 ppmvd @ 3% O2 (or less);
Particulate Matter: Use PUC-quality natural gas.

Therefore, compliance is expected with this section.

Section 5.3 states that the NOx and CO emission limits shall not apply to this unit during start-up and shutdown period provided that the duration of each start-up or each shutdown is not greater than 2.0 hours, and the emission control system is utilized during these periods.

For each boiler, the duration of each startup is 2.0 hour and each shutdown is 0.5 hour. Therefore, compliance is expected with this rule.

Section 5.7 discusses monitoring provisions to comply with NOx and CO limits. These provisions are similar to the provisions in Rule 4306 (discussed previously).

Section 5.7.6 requires the operator to provide annual fuel sulfur content analysis. The following conditions will satisfy the requirements of this section:

- The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If
the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)]

- Fuel sulfur content shall be determined using EPA Method 11 or EPA Method 15 or District, CARB and EPA approved alternative methods. [District Rule 4320]

Section 5.8 discusses compliance determination. The requirements in this section are similar to the requirements in Rule 4306 (discussed previously).

Section 6.0 – Administrative Requirements
Recordkeeping requirements of this Rule are similar to that of the Rule 4306. Please refer to section 6.0 of Rule 4306.

Section 7.0 – Compliance Schedule
This section refers to "Authority to Construct" and "Compliance Deadline" dates. These proposed boiler are new boilers, and are expected to operate in compliance with this rule.

Compliance is expected with this Rule.

Rule 4351 Boilers, Steam Generators and Process Heaters – Phase 1

Except for the recordkeeping requirement in Section 6.1.1 of Rule 4351 (described below), the emission limits of District Rule 4306 and 4320 and all other requirements are equivalent or more stringent than this Rule; therefore, compliance with District Rule 4306 and 4320 requirements will satisfy requirements of District Rule 4351.

Section 6.1.1 of this rule requires that the owner of each unit shall monitor and record for each unit the higher heating value (hhv) and cumulative annual use of each fuel. The following conditions will be included in permits N-8887-1 and '-2 to ensure compliance with the requirements of this section:

- The owner or operator shall monitor and record the higher heating value (HHV) of the fuel combusted in this unit. The HHV shall be certified by thirty party fuel supplied or determined annually using ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 4351]

- The owner or operator shall maintain records of the cumulative annual use of the fuel combusted in this unit. [District Rules 4351]

Compliance is expected with this Rule.
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.

This facility is not a petroleum refinery or a gas liquids processing facility. Pursuant to Section 3.4, a chemical plant is defined as an establishment that produces organic chemicals and/or manufactures products by organic chemical processes. TRE will produce ethanol by the fermentation of distiller beets, which can be considered an organic chemical process. Therefore, this facility 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. It will be assumed that all or part of the following processes has components containing or contacting VOC during the ethanol production process. Therefore, the requirements of District Rule 4455 will be applicable to those components associated with these processes. The following permits are subject to the requirements of this Rule.

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-5-0: Fermentation Operation
N-8887-6-0: Beerwell tank
N-8887-7-0: Yeast cream separation operation
N-8887-8-0: Fermented wash holding tank
N-8887-9-0: Distillation operation
N-8887-10-0: 10,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation
N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
N-8887-18-0: Denatured ethanol loading operation

As discussed in Section VII.C of this document, fugitive VOC emissions from component leaks are calculated using the SOCMI Average Emission Factors in Table 2-1 and the LDAR control efficiencies for HON facilities in Table 5-2 of U. S. EPA’s Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017).

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 will be included on the permits to ensure 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 identify how to determine compliance with leak standards of the Rule.

Section 5.1.4 provides leak standards for all applicable components.

The following conditions will be included on permits to ensure 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]

- Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rule 2201 and 4455, 5.1.4]
• Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [District Rules 2201 and 4455, 5.1.4]

• 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]

Section 5.2 requires equipment to be inspected and re-inspected for leak detection and leaking equipment identification. The following conditions will be included on the permits to 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 re-inspected 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 and 5.2.2]

• The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2.7]

• 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]

• 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 Rule 4455 exists for that component type, or the APCO
issued a Notice of Violation for violating any of the provisions of Rule 4455
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 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]

• 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 will
be included on the permits to 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

• 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 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, 5.3.4 and 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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 will be included on the permits to 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 recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]
Section 5.5 requires clear and visible physical identification of major and critical components. The following conditions will be included on the permits to 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 recordkeeping 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.

For this facility, an OMP was not submitted with these ATC applications. Therefore, the operator will be required to submit an OMP and receive approval of that plan prior to implementing any of the Authority to Construct permits subject to the requirements of this Rule.

The following conditions will be included on the permits to ensure continued compliance with the requirements of Section 6 of this Rule:

- Prior to the implementation of Authority to Construct permits N-8887-4 through '-14, '-17 and '-18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

- 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 and 6.1.4]

- Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]
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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [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 Rule 4455. [District Rule 4455, 6.4]

Compliance is expected with this Rule.

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

This rule applies to storage containers located at bulk plants with capacities greater than 250 gallons and less than 19,800 gallons; to other stationary storage containers with capacities greater than 250 gallons; and to those storage containers that are not subject to the control requirements of Rule 4623 (Storage of Organic Liquids) Section 5.0. The rule also applies to gasoline delivery vessels.

TRE has proposed to receive and store gasoline in a 20,000 gallon storage tank. As discussed below, this 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.

**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.

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 and storage tanks proposed by TRE will hold, stored 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:

N-8887-4-0: Yeast preparation and pre-fermentation operation
N-8887-5-0: Fermentation Operation
N-8887-6-0: Beenwell tank
N-8887-7-0: Yeast cream separation operation
N-8887-8-0: Fermented wash holding tank
N-8887-9-0: Distillation operation
N-8887-10-0: 30,000 gallon Condensate tank
N-8887-11-0: Vinasse processing, storage and loadout operation
N-8887-12-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-13-0: 127,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-14-0: 381,000 gallon internal floating roof tank (200 proof ethanol)
N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)

N-8887-4 to '-11 (Fixed roof process tanks):
Based on the available information from other ethanol production plants, True Vapor Pressure (TVP) of the organic liquids processed through the process tanks under these permits is presumed to be 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.

<table>
<thead>
<tr>
<th>Tank Design Capacity (TDC) (gallon)</th>
<th>True Vapor Pressure (TVP) of Organic Liquid</th>
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<tbody>
<tr>
<td></td>
<td>0.5 &lt; TVP (psia) &lt;1.5</td>
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<tr>
<td>1,100 ≤ TDC ≤ 19,800</td>
<td>Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System</td>
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<tr>
<td>TDC &gt; 39,600</td>
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</table>

TRE has proposed to vent each of these roof organic liquid process tanks to either a process vent gas scrubber or CO2 scrubber with high pressure condenser system. These control devices are proposed to have a minimum control efficiency of 95% for VOC emissions. Therefore, each new 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.

TRE will be required to maintain leak free condition for each tank. 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 reduce at least 95% VOC (by weight) as determined by the test method specified in Section 6.4.7. The following condition will be included in each permit:

- 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. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

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
Since the proposed tanks are controlled fixed roof tanks. Therefore, requirements of Section 6.2 do not apply to the proposed tanks.

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.

N-8887-12 to ‘-14 (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.

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</table>
TRE has proposed 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 5.1.2 lists small producer VOC control system requirements for crude oil storage tanks. TRE will not store crude oil in the proposed tanks. Therefore, no further discussion is required.

Section 5.1.3 requires all tanks to be leak-free, as defined by Section 3.17 of the rule. The following condition will ensure compliance with this section:

- A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 100 ppmv for valves, connectors and flanges 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 liquid leak is defined as a dripping rate of more than three (3) drops per minute. A reading in excess of 100 ppmv for valves, connectors and flanges or 500 ppmv for pumps and compressor seals, above background or a liquid leak of greater than three (3) drops per minute is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623]

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.

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</table>
The applicant proposed to equip each internal floating roof tank with an Ultraflote Model Dual Ulraseal 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 Ulraseal 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 Ulraseal 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 Ulraseal, 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)]

• 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. [District Rule 4623 and 40 CFR 60.112b(a)(1)(ii)]

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. Per 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.

Since the applicant proposed to install Ultraflote model Dual Ultraceal system on each internal floating roof tank, the following permit condition will be listed on each permit as follows:

- The Ultraflote Model Dual Ultraceal 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 Ultraceal seal system, the following permit condition will be listed on each permit as follows:

- The geometry of the Ultraflote model Dual Ultraceal 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 will be listed on each permit as follows:

- 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 will be listed on each permit as follows:

- 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 will be listed on each permit as follows:

- 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 will be listed on each permit as follows:

- 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]

Since the proposed tanks are internal floating roof tanks, 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 will be listed on each permit as follows:

- 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 will be listed on each permit as follows:

- 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 will be listed on each permit as follows:

- 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 will be listed on each permit as follows:

- 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 will be listed on each permit as follows:

- 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 will be listed on each permit as follows:
• 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 will be listed on each permit as follows:

• The owner or operator 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 will be listed on each permit as follows:

• The owner or operator 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 rule 4623. [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 will be listed on each permit as follows:

- The owner or operator 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 6.3.5, 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 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 will be listed on each permit as follows:

- The owner or operator 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 the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were
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 conditions will be listed on each permit as follows:

- The owner or operator 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]

N-8887-17-0: 20,000 gallon gasoline storage tank (pressure vessel)
Per section 4.1.1, requirements of Rule 4623 do not apply to pressure vessels. A pressure vessel is defined as a tank, reservoir, or container that is capable of maintaining working pressures sufficient to prevent organic liquid loss of VOC loss to the atmosphere at all times.

TRE has proposed to install a 20,000 gallon totally enclosed gasoline storage tank. The tank will prevent organic liquid loss and VOC loss to the atmosphere at all times. Therefore, the proposed tank meets the definition of a pressure vessel and the requirements of this rule are not applicable. No further discussion is required. Compliance is expected with this Rule.

Rule 4624 Transfer of Organic Liquid

Section 2.0 – Applicability
This rule shall apply to organic liquid transfer facilities as defined in this rule.

Section 3.0 - Definitions
Class 1 Organic Liquid Transfer Facility: any location transferring 20,000 gallons or more on any one day of organic liquids with a TVP of 1.5 psia or greater to or from tank trucks, trailers, or railroad tank cars.
Class 2 Organic Liquid Transfer Facility: any location transferring 4,000 gallons or
more but less than 20,000 gallons on any one day of organic liquids with a TVP of
1.5 psia or greater to or from tank trucks, trailers, or railroad tank cars.

Based on the available information from another ethanol production plant, TVP of
the denatured ethanol is assumed to be 3.47 psia. Further, this facility is expected
to transfer more than 20,000 gallons/day of denatured ethanol into tanker trucks.
Therefore, this facility is considered a Class 1 organic liquid transfer facility.

Section 5.0 - Requirements
Section 5.1 requires a Class 1 organic liquid transfer facility to emit less than or
equal to 0.08 lb-VOC/1,000 gallon of organic liquid transfer and use either one of the
following systems: bottom loading, or route the vapors to a vapor collection system,
or fixed or floating roof or pressure vessel, or a closed VOC emissions control
system.

TRE has proposed to emit less than or equal to 0.08 lb-VOC/1,000 gallon emissions
while transferring denatured ethanol into tanker trucks. VOC vapors displaced from
tanker trucks will be routed to the John Zink carbon adsorber system. The denatured
ethanol loading will be accomplished via bottom loading method with the use of dry
break couplers. Therefore, the proposed operation is expected to comply with this
section. The following condition will be included in permit N-8887-18:

• Controlled VOC emissions rate from the VRU serving the loading racks shall
  not exceed 0.08 lb/1,000 gal of denatured ethanol loaded. [District Rules 2201
  and 4624]

Section 5.4 requires that the vapor collection and control system shall operate such
that the pressure in the delivery tank being loaded does not exceed 18 inches water
column and 6 inches water column vacuum. This section shall not apply to the
transfer of liquefied petroleum gas. The following condition will be included in permit
N-8887-18:

• The vapor collection and control system shall operate such that the pressure in
  the delivery tank being loaded shall not exceed 18 inches water column
  pressure and 6 inches water column vacuum. [District Rule 4624]

Section 5.5 states that all delivery tanks which previously contained organic liquids
with a TVP of 1.5 psia or greater at the storage container’s maximum organic liquid
storage temperature shall be filled only at transfer facilities satisfying Sections 5.1,
5.2, or 5.4, as applicable. The following condition will be included in permit N-8887-
18:

22 Based on the information for another ethanol production plant (refer to project N-1111864).
• All delivery tanks shall be properly connected to the vapor collection system before transferring the organic liquid in the tank. [District Rules 2201 and 4624]

Section 5.6 states that the transfer rack and vapor collection equipment shall be designed, installed, maintained and operated such that there are no leaks and no excess organic liquid drainage at disconnections. Section 3.13 defines excess organic liquid drainage: more than 10 milliliters liquid drainage. Such liquid drainage for disconnect operations shall be determined by computing the average drainage from three consecutive disconnects at any one permit unit. The following condition will be included in permit N-8887-18:

• Each transfer rack and vapor collection system shall be designed, installed, maintained and operated such that there are no leaks and no excess organic liquid drainage at disconnections. [District Rule 4624]

Section 5.7 states that the construction of any new top loading facility or the reconstruction, as defined in 40 CFR 60.15, or the expansion of any existing top loading facility with top loading equipment shall not be allowed.

TRE is not proposing to install a top loading facility. Thus, compliance is expected with this section.

Section 5.9 lists leak inspection requirements. These requirements do not apply since the components are subject to Rule 4455.

Section 6.1 - Recordkeeping
Section 6.1.3 requires the operator to keep records of daily liquid throughput and the results of leak inspections. The following condition(s) will be included in permit N-8887-18:

• The owner or operator shall maintain daily and monthly records of the denatured ethanol loadout in gallons. The monthly records shall be used to determine the amount of denatured ethanol loadout in a 12-month rolling period. [District Rules 2201 and 4624]

Section 6.1.4 requires the operator to keep records for at least five years. The following conditions will be included in permit N-8887-18:

• All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4624]
Section 6.2 – Compliance Testing

Section 6.2.1 requires the operator of Class 1 or Class 2 organic liquid transfer facility to perform an initial source test of the VOC emission control system. Further, section 6.2.2 requires the operator of any Class 1 or Class 2 organic liquid transfer facility shall perform the source test specified in Section 6.3.2 once every 60 months, but no more than 30 days before or after initial source test anniversary date.

TRE will be required to conduct an annual test to demonstrate compliance with VOC emission limit and the control efficiency of the vapor recovery system. The following conditions will be included in permit N-8887-18:

• Source testing to demonstrate compliance with the VOC emission limit and the 99% control efficiency of the VRU shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. Source testing shall be conducted while denatured ethanol is being processed through the loading rack. [District Rule 2201 and 4624]

Section 6.3 contains several test methods. The facility will be required to conduct leak inspections using portable hydrocarbon detector in accordance with EPA Method 21.

Section 7.0 – Compliance Schedule

This section lists compliance schedule for existing and new facilities. This facility is expected to be operated in compliance with the requirements of this Rule.

Compliance is expected with this Rule.

Rule 4701 Internal Combustion Engines – Phase 1

Since the applicable administrative requirements in Rule 4702 are equivalent or more stringent than that of the Rule 4701, compliance with Rule 4702 requirements will satisfy requirements of Rule 4701.

Rule 4702 Internal Combustion Engines

Section 2.0 - Applicability

This rule applies to any internal combustion engine rated at 25 brake horsepower or greater.

TRE has proposed to install a 237 bhp diesel-fueled Tier 3 emergency fire pump engine and a 1,502 bhp diesel-fueled Tier 2 emergency IC engine powering an
electrical generator. Both engines are greater than 25 bhp. Therefore, these engines are subject to the requirements of this rule.

Section 4.0 – Exemptions
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:

- 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

- Except for operations (stated above), the engine is limited to operate no more than 100 hours per calendar year as determined by an operational non-resettable elapsed time meter, for periodic maintenance, periodic readiness testing, and readiness testing during and after repair work of the engine; and

- The engine is operated with an operational non-resettable elapsed time meter. In lieu of installing a non-resettable elapsed time meter, the operator of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA. The operator of the engine shall properly maintain and operate the non-resettable elapsed time meter or alternative device in accordance with the manufacturer’s instructions.

The proposed engines will be operated exclusively during emergency situations including power outage caused by sudden and reasonably unforeseen natural disasters, or sudden and reasonably unforeseen events beyond the control of the owner or operator. Furthermore, the engines operation is limited to 100 hours/year (or less) for all maintenance, testing and required regulatory purpose. The engine operation is required to be recorded using a non-resettable elapsed time meter or other APCO approved alternative. Therefore, these engines are not subject to the requirements in this rule with an exception of requirements in 6.2.3 (see below).

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
- This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702, 17 CCR 93115, and 40 CFR Part 60.4209(a)]

- An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the owner or operator. [District Rule 4702]
This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4102 and 4702, 17 CCR 93115, and 40 CFR 60.4211(f)]

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702, 17 CCR 93115 and 40 CFR Part 60.4209(a)]

This engine shall be operated only for testing and maintenance of the engine, 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", 2002 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 4102 and 4702, 17 CCR 93115, and 40 CFR 60.4211(f)]

Section 6.2 – Recordkeeping

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 provided to the APCO upon request.

The records shall include, but are not limited to, the following:

- Total hours of operation,
- The type of fuel used,
- The purpose for operating the engine,
- For emergency standby engines, all hours of non-emergency and emergency operation shall be reported, and
- Other support documentation necessary to demonstrate claim to the exemption.

The following conditions will be included in permits N-8887-20 and '-21-0:

- The owner or operator shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of
operational characteristics monitoring. 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 Rule 4702, 17 CCR 93115, and 40 CFR 60.4214(b)]

- All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]

Compliance is expected with this Rule.

**Rule 4801 Sulfur Compounds**

Section 3.1 states that a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding a concentration of two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO₂) at the point of discharge on a dry basis averaged over 15 consecutive minutes.

N-8887-1-0: 175 MMBtu/hr natural gas-fired boiler (boiler #1)
N-8887-2-0: 175 MMBtu/hr natural gas-fired boiler (boiler #2)
N-8887-16-0: Beet pulp processing, storage and loadout operations (RTO)

For the proposed gaseous fuel combustion at a reference state of 60 °F, the Rule 4801 limit of 2,000 ppmvd is equivalent to:

\[
\left(\frac{2000 \text{ ppmvd}}{379.5 \frac{\text{dscf}}{\text{lb-mol}}}\right) \left(\frac{8578 \frac{\text{dscf}}{\text{MMBtu}}}{64 \frac{\text{lb-SO}_2}{\text{lb-mol}}}\right) = 2.9 \frac{\text{lb-SO}_2}{\text{MMBtu}}
\]

SO₂ emissions from the boilers and RTO are based on 1.0 gr-S/100 scf, equivalent to 0.00285 lb/MMBtu. Since these emissions are less than 2.9 lb/MMBtu, it is expected that these units will operate in compliance with this Rule.

N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine

Volume SO₂ = \(\frac{n \times R \times T}{P}\)

\(n = \) moles SO₂

\(T\) (standard temperature) = 60 °F or 520 °R

\(R\) (universal gas constant) = \(\frac{10.73 \text{psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}}\)
Rule 7012  Hexavalent Chromium – Cooling Towers

The requirements of this rule shall apply to any person who owns or operates or who plans to build, own, or operate a cooling tower in which the circulating water is exposed to the atmosphere. Section 5.2.1 of this rule states no hexavalent chromium containing compounds shall be added to cooling tower circulating water. The following condition will be placed in permit N-8887-19:

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

Compliance is expected with this Rule.

Rule 8011  General Requirements
Rule 8021  Construction, Demolition, Excavation, Extraction, And Other Earthmoving Activities
Rule 8031  Bulk Materials
Rule 8041  Carryout And Trackout
Rule 8051  Open Areas
Rule 8061  Paved and Unpaved Roads
Rule 8071  Unpaved Vehicle/Equipment Traffic Areas

The construction of this new facility will involve excavation, extraction, construction, demolition, outdoor storage piles, paved and unpaved roads.

The regulations from the 8000 Series District Rules contain requirements for the control of fugitive dust. These requirements apply to various sources, including construction, demolition, excavation, extraction, mining activities, outdoor storage piles, paved and unpaved roads. Compliance with these regulations will be required by the following permit conditions, which will be listed on each permit as follows:

- 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 or Rule 8011. [District Rules 8011 and 8021]

- An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed...
surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

- 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

- 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 or Rule 8011. [District Rules 8011 and 8051]

- 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 or Rule 8011. [District Rules 8011 and 8061]

- Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

- Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

- On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

- Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]
• Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]

Title 17 California Code of Regulations (CCR), Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

§93115.5 - Fuel and Fuel Additive Requirements for New and In-Use Stationary CI Engines That Have a Rated Brake Horsepower of Greater than 50 (>50 bhp)
N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
This regulation also stipulates that as of January 1, 2006 an owner or operator of a new or in-use stationary diesel-fueled CI emergency standby engine shall fuel the engine with CARB Diesel Fuel.

Since the engines involved with this project are new stationary diesel-fueled CI emergency standby engine, these fuel requirements are applicable. Therefore, the following condition will be included in permits N-8887-20 and '-21:

• Only CARB certified diesel fuel containing no more than 0.0015% sulfur by weight shall be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR 60.4207(b)]

§93115.6 Emergency Standby Diesel-Fueled CI Engine (>50 bhp) Operating Requirements and Emission Standards
N-8887-20-0: 1,502 bhp diesel-fueled Tier 2 emergency IC engine
Section (a)(3)(A), Emission Standards and Hours of Operating Requirements, requires that new emergency standby diesel-fueled engines (>50 bhp) shall:

a. Meet the applicable emission standards for all pollutants for the same model year and maximum horsepower rating as specified in Table 1 Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines, in effect on the date of acquisition or submittal, as defined in section 93115.4, and

b. After December 31, 2008, be certified to the new nonroad compression-ignition (CI) engine emission standards for all pollutants for 2007 and later model year
engines as specified in 40 CFR, PART 60, Subpart III-Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (2006); and

c. Not operate more than 50 hours per year for maintenance and testing purposes, except as provided in 93115.6(a)(3)(A)2. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with 93115.6(a)(3).

| Table 1: Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines g/bhp-hr (g/kW-hr) |
|--------------------------------------------------|------------------|------------------|------------------|
| Maximum Engine Power | Model year(s) | PM | NMHC+NOx | CO |
| 50 ≤ HP ≤ 75 (37 ≤ kW ≤ 56) | 2007 | 0.15 (0.20) | 5.6 (7.5) | 3.5 (4.7) | 3.7 (5.0) |
| 75 ≤ HP ≤ 100 (56 ≤ kW ≤ 75) | 2007 | 0.15 (0.20) | 5.6 (7.5) | 3.5 (4.7) | 3.7 (5.0) |
| 100 ≤ HP ≤ 175 (75 ≤ kW ≤ 130) | 2007 | 0.15 (0.20) | 3.0 (4.0) | 3.7 (5.0) |
| 175 ≤ HP ≤ 300 (130 ≤ kW ≤ 225) | 2007 | 0.15 (0.20) | 3.0 (4.0) | 2.6 (3.5) |
| 300 ≤ HP ≤ 600 (225 ≤ kW ≤ 450) | 2007 | 0.15 (0.20) | 3.0 (4.0) | 2.6 (3.5) |
| 600 ≤ HP ≤ 750 (450 ≤ kW ≤ 560) | 2007 | 0.15 (0.20) | 3.0 (4.0) | 2.6 (3.5) |
| HP > 750 (kW > 560) | 2007 | 0.15 (0.20) | 4.8 (6.4) | 2.6 (3.5) |

As discussed previously, 40 CFR, Part 60, Subpart III requires to comply with the standards in the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

40 CFR 89.112(a), Table 1 lists the following standards for engine rated greater than 560 kW (>724 hp) for model year 2006: 6.4 g/kW-hr (4.8 g/bhp-hr) for NMHC+NOx, 3.5 g/kW-hr (2.5 g/bhp-hr) for CO and 0.2 g/kW-hr (0.1 g/bhp-hr) for PM. Furthermore, 40 CFR 89.113 has smoke emission standard and requires that the exhaust opacity from CI non-road engine must not exceed 20% during the acceleration mode, 15% during the lugging mode, and 50% during the peaks in either the acceleration or lugging modes. The maximum dry smoke opacity varies from 0.7% to 3% depending on the load. Therefore, it is presumed that the proposed engine will comply with the opacity standards and no additional conditions are necessary in the permit.

The following condition will ensure compliance with this section:

- Emissions from this engine shall not exceed any of the following: 4.93 g-NOx/bhp-hr, 0.13 g-CO/bhp-hr, 0.01 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR 60.4205(b)(2)]
• PM$_{10}$ emissions shall not exceed 0.02 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR 60.4205(b)(2)]

• This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 4102 and 4702, 17 CCR 93115, and 40 CFR 60.4211(f)]

N-8887-21-0: 237 bhp diesel-fueled Tier 3 emergency fire pump engine
Section (a)(4) (A), Standards and Hours of Operating Requirements, requires that new direct-drive emergency standby diesel-fueled fire-pump engines (>50 bhp) shall:

a. Meet the applicable emissions standards for all pollutants as specified in Table 2 Emissions Standards for New Stationary Emergency Standby Direct-Drive Fire Pump Engines for the model year and NFPA nameplate power rating; and

b. Meet the new fire pump engine certification requirements and emission standards required by 40 CFR § 60.4202(d.) Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (2006); and

c. Not operate more than 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," 2002 edition, which is incorporated herein by reference. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with 93115.6(a)(4).
Table 2: Emission Standards for New Stationary Emergency Standby Direct-Drive Fire Pump Engines > 50 BHP g/bhp-hr (g/kW-hr)

<table>
<thead>
<tr>
<th>Maximum Engine Power</th>
<th>Model year(s)</th>
<th>PM</th>
<th>NMHC+NOx</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 &lt; HP &lt; 75 (37 &lt; kW &lt; 56)</td>
<td>2010 and earlier 2011+¹</td>
<td>0.60 (0.80)</td>
<td>7.8 (10.5)</td>
<td>3.7 (5.0)</td>
</tr>
<tr>
<td>75 &lt; HP &lt; 100 (56 &lt; kW &lt; 75)</td>
<td>2010 and earlier 2011+¹</td>
<td>0.60 (0.80)</td>
<td>7.8 (10.5)</td>
<td>3.7 (5.0)</td>
</tr>
<tr>
<td>100 &lt; HP &lt; 175 (75 &lt; kW &lt; 130)</td>
<td>2009 and earlier 2010+²</td>
<td>0.60 (0.80)</td>
<td>7.8 (10.5)</td>
<td>3.7 (5.0)</td>
</tr>
<tr>
<td>175 &lt; HP &lt; 300 (130 &lt; kW &lt; 225)</td>
<td>2008 and earlier 2009+³</td>
<td>0.40 (0.54)</td>
<td>7.8 (10.5)</td>
<td>2.6 (3.5)</td>
</tr>
<tr>
<td>300 &lt; HP &lt; 600 (225 &lt; kW &lt; 450)</td>
<td>2008 and earlier 2009+³</td>
<td>0.40 (0.54)</td>
<td>7.8 (10.5)</td>
<td>2.6 (3.5)</td>
</tr>
<tr>
<td>600 &lt; HP &lt; 750 (450 &lt; kW &lt; 560)</td>
<td>2008 and earlier 2009+³</td>
<td>0.40 (0.54)</td>
<td>7.8 (10.5)</td>
<td>2.6 (3.5)</td>
</tr>
<tr>
<td>HP &gt; 750 (Kw &gt; 560)</td>
<td>2007 and earlier 2008+³</td>
<td>0.40 (0.54)</td>
<td>7.8 (10.5)</td>
<td>2.6 (3.5)</td>
</tr>
</tbody>
</table>

1. For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.
2. For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.
3. In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

The proposed 237 bhp engine is a 2014 model with NMHC+NOx emissions rate of 2.8 g/bhp-hr, PM emissions rate of 0.1 g/bhp-hr, and CO emissions rate of 0.9 g/bhp-hr. These emissions rates are less than the required emission standards. Therefore, compliance is expected with section (a)(4) (A)(1)(a).

The proposed engine is certified to comply with emission standards required by 40 CFR 60.4202(d), Table 4 (NMHC+NOx = 3.0 g/bhp-hr, 0.15 g/bhp-hr for PM, CO emissions are not mentioned in the table 4 corresponding to 2010+ model, but believed to be same as 2008 and earlier model year, which is 2.6 g/bhp-hr). Thus, compliance is expected with section (a)(4) (A)(1)(b).

The proposed engine will be required to be operated for 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", 2002 edition. Thus, compliance is expected with section (a)(4) (A)(1)(b).

The following conditions will enforce on-going compliance with the above sections:

- Emissions from this engine shall not exceed any of the following: 2.7 g-NOx/bhp-hr, 0.9 g-CO/bhp-hr, 0.1 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR 60.4205(c)]
• PM\textsubscript{10} emissions shall not exceed 0.1 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR 60.4205(c)]

• This engine shall be operated only for testing and maintenance of the engine, 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", 2002 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 4102 and 4702, 17 CCR 93115, and 40 CFR 60.4211(f)]

§93115.10 — Recordkeeping, Reporting, and Monitoring Requirements
Pursuant to section (f), reporting requirements for emergency standby engines, starting January 1, 2005, each owner or operator of an emergency standby diesel-fueled CI engine shall keep records and prepare a monthly summary that shall list and document the nature of use for each of the following:

a. Emergency use hours of operation;
b. Maintenance and testing hours of operation;
c. Hours of operation for emission testing;
d. Initial start-up hours; and
e. If applicable, hours of operation to comply with the testing requirements of NFPA 25
f. Hours of operation for all uses other than those specified in sections 'a' through 'd' above; and
g. If applicable, DRP (Demand Response Program) engine hours of operation, and
h. The fuel used.

These records shall be retained for a minimum of 36 months. Records for the prior 24 months shall be retained on-site, either at a central location or at the engine's location, or at an offsite central location within California, and shall be made immediately available to the District staff upon request. Records for the prior 25 to 36 months shall be made available to District staff within 5 working days from request.

The following conditions will be listed in permits N-8887-20 and '-21:

• The owner or operator shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly
testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. 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 Rule 4702, 17 CCR 93115, and 40 CFR 60.4214(b)]

- All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]

Compliance is expected with this Regulation.

**California Environmental Quality Act Requirements (CEQA)**

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its Environmental Review Guidelines (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The City of Tracy (City) is the public agency having principal responsibility for approving the project. As such, the City served as the Lead Agency (CCR §15367). In approving the project, the Lead Agency prepared and adopted a Mitigated Negative Declaration. The Lead agency filed a Notice of Determination, stating that the environmental document was adopted pursuant to the provisions of CEQA and concluding that the project would not have a significant effect on the environment.

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CCR §15381). As a Responsible Agency the District complies with CEQA by considering the environmental document prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project (CCR §15096).
The District has considered the Lead Agency's environmental document. Furthermore, the District has conducted an engineering evaluation of the project, this document, which demonstrates that Stationary Source emissions from the project would be below the District's thresholds of significance for criteria pollutants. Thus, the District finds that through a combination of project design elements, compliance with applicable District rules and regulations, and compliance with District air permit conditions, project specific stationary source emissions will have a less than significant impact on air quality. The District does not have authority over any of the other project impacts and has, therefore, determined that no additional findings are required (CEQA Guidelines §15096(h)).

IX. RECOMMENDATION

Compliance with all rules and regulations is expected. Therefore, issuance of ATCs is recommended after addressing comments from EPA, ARB, applicant and the public.

X. BILLING INFORMATION

<table>
<thead>
<tr>
<th>Permit #</th>
<th>Fee Schedule</th>
<th>Fee Description</th>
<th>Previous Fee Schedule</th>
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<tbody>
<tr>
<td>N-8887-1-0-0</td>
<td>3020-02 H</td>
<td>175 MMBtu/hr boiler</td>
<td>None</td>
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<td>N-8887-3-0</td>
<td>3020-06</td>
<td>Miscellaneous</td>
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<td>N-8887-4-0</td>
<td>3020-05 E</td>
<td>173,969 gallons (total)</td>
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<td>N-8887-5-0</td>
<td>3020-05 G</td>
<td>2,105,180 gallons (total)</td>
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<td>3020-05 F</td>
<td>686,847 gallons</td>
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<td>2,160 hp</td>
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<td>N-8887-20-0</td>
<td>3020-10 F</td>
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<td>N-8887-21-0</td>
<td>3020-01 E</td>
<td>237 bhp, IC engine</td>
<td>None</td>
</tr>
</tbody>
</table>
APPENDICES:
Appendix I:  Draft Authority to Construct Permits
Appendix II:  Top-Down BACT Analysis
Appendix III:  HAPs Worksheet
Appendix IV:  Risk Management Review and AAQA Summary
Appendix V:  T-BACT Analysis for N-8887-21-0
Appendix VI:  Compliance Certification Letter
Appendix VII:  Potential Emissions from N-8887-12-0 or '-13 and '-14
Appendix I
Draft Authority to Construct Permits
AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-1-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
                      TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
            TRACY, CA 95304

EQUIPMENT DESCRIPTION:
175 MMBTU/HR VICTORY ENERGY MODEL VOYAGER (OR EQUIVALENT MANUFACTURER OR MODEL) BOILER
EQUIPPED WITH COEN MODEL VARIFLAME II (OR EQUIVALENT MANUFACTURER OR MODEL) LOW NOX BURNER
AND A CATASTACK (OR EQUIVALENT MANUFACTURER OR MODEL) SELECTIVE CATALYTIC REDUCTION
SYSTEM (BOILER #1). STEAM FROM BOILER#1 AND BOILER #2 SERVES CLOSED LOOP DESALINATION
PROCESS, STEAM TURBINE WITH A 5 MW ELECTRIC GENERATOR AND DISTILLER BEET TO ETHANOL
PRODUCTION PROCESS AT THIS SITE.

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits
   within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide NOx emissions shall not exceed 20,147 pounds during any 12 consecutive month rolling period.
   [District Rule 2201]

3. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period.
   [District Rule 2201]

4. Prior to operating under ATCs N-8887-1-0, '-2-0 and '-16-0, the owner or operator shall mitigate the following
   quantities of NOx: 1st quarter: 55 lb, 2nd quarter: 55 lb, 3rd quarter: 55 lb, and 4th quarter: 56 lb. The quarterly
   amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule
   2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO
OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE.
Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the
approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all
Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this
Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with
all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director - APCO

Arnaud Marjollet, Director of Permit Services
N-8887-1-0: Dec 11 2014 4:18PM - RAHLOU: Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
5. NOx ERC S-4362-2 (or a certificate split from any of these certificates) shall be used to supply the required NOx offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

6. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

7. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

8. 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]

9. 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]

10. (98) No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

11. (14) Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

12. (15) 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]

13. The unit shall only be fired on PUC-quality natural gas with a sulfur content of no greater than 1.0 grains (gr) of sulfur per 100 standard cubic feet (scf) of natural gas. [District Rules 2201 and 4320, 40 CFR 60.42b(k)(1)(2)]

14. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in this unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR 60.49b(d)(1)]

15. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320]

16. The startup duration shall not exceed 2.0 hours per day. [District Rules 2201, 4306 and 4320]

17. The shutdown duration shall not exceed 0.5 hour per day. [District Rules 2201, 4306 and 4320]

18. The total duration of startups and shutdowns shall not exceed 30 hours during any 12 consecutive month rolling period. [District Rule 2201]

19. During startup and shutdown period, heat input rate shall be less than or equal to 10% of the maximum heat input rate to the boiler. [District Rule 2201]

20. During startup, NOx emissions shall not exceed 39.5 ppmvd @ 3% O2 or 0.048 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rule 2201 and 40 CFR Part 60.13(h)(1)]

21. During shutdown, NOx emissions shall not exceed 39.5 ppmvd @ 3% O2 or 0.048 lb/MMBtu. [District Rule 2201]

22. During startup, CO emissions shall not exceed 65 ppmvd @ 3% O2 or 0.048 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rule 2201 and 40 CFR Part 60.13(h)(1)]

23. During shutdown, CO emissions shall not exceed 65 ppmvd @ 3% O2 or 0.048 lb/MMBtu. [District Rule 2201]

24. Except during startup and shutdown, NOx emissions shall not exceed 5 ppmvd @ 3% O2 or 0.0062 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
25. Except during startup and shutdown, CO emissions shall not exceed 50 ppmvd @ 3% O2 or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]

26. SO2 emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]

27. PM10 emissions shall not exceed 0.003 lb/MMBtu. [District Rule 2201]

28. VOC emissions shall not exceed 10 ppmvd @ 3% O2 or 0.0042 lb/MMBtu, referenced as methane. [District Rule 2201]

29. NH3 emissions shall not exceed 10 ppmvd @ 3% O2. [District Rule 2201]

30. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]

31. 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]

32. Source testing to measure startup and shutdown NOx and CO emissions shall be conducted within 60 days of initial startup under this permit. CEMS relative accuracy for NOx and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). [District Rule 2201]

33. Source testing to measure steady state NOx, CO, VOC and NH3 emissions shall be conducted within 60-days of the initial startup. [District Rules 2201, 4305, 4306 and 4320]

34. Source testing to measure NOx, CO and NH3 emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 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 12 months. [District Rules 4305, 4306 and 4320]

35. 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, 4306 and 4320]

36. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320]

37. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320]

38. VOC emissions for source test purpose shall be determined using EPA Method 18, 25A, or other District approved alternative method. [District Rule 2201]

39. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320]

40. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 2201]

41. The source test plan shall identify which basis (ppmvd or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]

42. 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 4320. [District Rules 4305, 4306 and 4320]

43. 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, 4306 and 4320]

44. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
45. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx, CO and O2 concentrations. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(1)]

46. The owner or operator shall monitor and record the stack concentration of NH3 at least once during each month in which source testing is not performed. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if 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(s) unless it has been performed within the last month. [District Rule 2201]

47. The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS. Span value for NOx shall be 500 ppmv. [40 CFR 60.48b(e)(2)]

48. The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)]

49. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]

50. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2) for NOx, Appendix B PS 4A for CO, and Appendix B PS 3 for O2 or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]

51. In accordance with 40 CFR Part 60, Appendix F, 5.1, NOx, CO and O2 CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320]

52. The owner/operator shall perform a RATA for NOx, CO and O2 as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rules 1080, 2201, 4305, 4306 and 4320]

53. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320]

54. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]

55. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]

56. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. [District Rule 1080]

57. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080]

58. The permittee shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative. [District Rule 1080]
59. The owner or operator shall submit the performance test data and the performance evaluation of the CEMS using performance specification 2 (PS 2) for NOx, PS 4A for CO, and PS3 for O2 in 40 CFR Part 60 Appendix B. [40 CFR 60.49b(b)]

60. For 40 CFR Part 60 Subpart Db purpose, NOx emissions shall not exceed 0.1 lb/MMBtu for low heat release units (70,000 Btu/hr-ft³ of furnace volume or less) and 0.2 lb/MMBtu for high heat release units (greater than 70,000 Btu/hr-ft³ of furnace volume) on a 30-day rolling average basis. NOx standard shall apply at all times including periods of startup, shutdown, or malfunction. The permittee shall maintain record of the furnace volume, which is defined as the volume bounded by the front furnace wall where the burner is located, the furnace side waterfall, and extending to the level just below or in front of the first row of convection pass tubes. [40 CFR 60.44b(a), 60.44b(h), 60.44b(i)]

61. For the initial compliance test under 40 CFR Part 60 Subpart Db, NOx emissions shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the NOx emission standard under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft³ of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft³ of furnace volume)). The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [40 CFR 60.46b(e)(1)]

62. Following the initial compliance test, the operator shall upon request determine compliance with the NOx standard under 40 CFR 60.44 (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft³ of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft³ of furnace volume)) through the use of a 30-day performance test. During periods when performance tests are not requested, NOx emissions data collected pursuant to §60.48b(g)(1) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NOx emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(4)]

63. The 1-hour average NOx emission rates measured by the continuous NOx monitor shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft³ of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft³ of furnace volume)). The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)]

64. When NOx data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)]

65. The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)]

66. The owner or operator shall monitor and record the higher heating value (HHV) of the fuel combusted in this unit. The HHV shall be certified by thirty party fuel supplied or determined annually using ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 4351]

67. The owner or operator shall maintain records of the cumulative annual use of the fuel combusted in this unit. [District Rule 4351]

68. The owner or operator shall maintain records of the annual capacity factor on a monthly basis. The annual capacity factor shall be determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR 60.49b(d)(1)]
69. The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)]

70. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NOx and CO emission rates (expressed as NO2) (ppmvd @ 3% O2 and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NOx emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft3 of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft3 of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NOx and CO emission rates are in excess of the NOx and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)]

71. The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)]

72. The owner or operator shall keep records of the date and time, measured NH3 concentration, O2 concentration in percent, and NH3 concentration corrected to 3% O2. [District Rule 2201]

73. The owner or operator shall keep records of the date, duration of each startup (hours), duration of each shutdown (hours), heat input rate during startup (MMBtu), and heat input rate during shutdown (MMBtu). [District Rule 2201]

74. The owner or operator shall keep records of the total duration of startups and shutdowns (hours) on a rolling 12 consecutive month total basis, and shall be updated at least monthly. [District Rule 2201]

75. The owner or operator shall keep records of the facility-wide NOx and VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

76. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)]

77. {3433} 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 or Rule 8044. [District Rules 8011 and 8021]

CONDITIONS CONTINUE ON NEXT PAGE
78. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

79. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

80. 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 or Rule 8011. [District Rules 8011 and 8051]

81. 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 or Rule 8011. [District Rules 8011 and 8061]

82. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

83. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

84. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

85. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

86. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]

87. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201]

88. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2010]

89. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201]

90. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or increase in firing rate may be authorized for any alternate equipment. [District Rule 2201]
AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
175 MMBTU/HR VICTORY ENERGY MODEL VOYAGER (OR EQUIVALENT MANUFACTURER OR MODEL) BOILER
EQUIPPED WITH COEN MODEL VARIFLAME II (OR EQUIVALENT MANUFACTURER OR MODEL) LOW NOX BURNER
AND A CATASTACK (OR EQUIVALENT MANUFACTURER OR MODEL) SELECTIVE CATALYTIC REDUCTION
SYSTEM (BOILER #2). STEAM FROM BOILER #1 AND BOILER #2 SERVES CLOSED LOOP DESALINATION
PROCESS, STEAM TURBINE WITH A 5 MW ELECTRIC GENERATOR AND DISTILLER BEET TO ETHANOL
PRODUCTION PROCESS AT THIS SITE.

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits
within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide NOx emissions shall not exceed 20,147 pounds during any 12 consecutive month rolling period.
   [District Rule 2201]

3. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period.
   [District Rule 2201]

4. Prior to operating under ATCs N-8887-1-0, '-2-0 and '-16-0, the owner or operator shall mitigate the following
   quantities of NOx: 1st quarter: 55 lb, 2nd quarter: 55 lb, 3rd quarter: 55 lb, and 4th quarter: 56 lb. The quarterly
   amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule
   2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE.

Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Amnaud Marjolle, Director of Permit Services
N-6887-2-0 • Dec 11 2014 4:13PM • KAHLOU • Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
5. NOx ERC S-4362-2 (or a certificate split from any of these certificates) shall be used to supply the required NOx offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

6. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

7. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

8. 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]

9. 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]

10. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

11. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

12. {15} 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]

13. The unit shall only be fired on PUC-quality natural gas with a sulfur content of no greater than 1.0 grains (gr) of sulfur per 100 standard cubic feet (scf) of natural gas. [District Rules 2201 and 4320, 40 CFR 60.42b(k)(1)(2)]

14. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in this unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR 60.49b(d)(1)]

15. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320]

16. The startup duration shall not exceed 2.0 hours per day. [District Rules 2201, 4306 and 4320]

17. The shutdown duration shall not exceed 0.5 hour per day. [District Rules 2201, 4306 and 4320]

18. The total duration of startups and shutdowns shall not exceed 30 hours during any 12 consecutive month rolling period. [District Rule 2201]

19. During startup and shutdown period, heat input rate shall be less than or equal to 10% of the maximum heat input rate to the boiler. [District Rule 2201]

20. During startup, NOx emissions shall not exceed 39.5 ppmvd @ 3% O2 or 0.048 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rule 2201 and 40 CFR Part 60.13(h)(1)]

21. During shutdown, NOx emissions shall not exceed 39.5 ppmvd @ 3% O2 or 0.048 lb/MMBtu. [District Rule 2201]

22. During startup, CO emissions shall not exceed 65 ppmvd @ 3% O2 or 0.048 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rule 2201 and 40 CFR Part 60.13(h)(1)]

23. During shutdown, CO emissions shall not exceed 65 ppmvd @ 3% O2 or 0.048 lb/MMBtu. [District Rule 2201]

24. Except during startup and shutdown, NOx emissions shall not exceed 5 ppmvd @ 3% O2 or 0.0062 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
25. Except during startup and shutdown, CO emissions shall not exceed 50 ppmvd @ 3% O2 or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]

26. SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]

27. PM10 emissions shall not exceed 0.003 lb/MMBtu. [District Rule 2201]

28. VOC emissions shall not exceed 10 ppmvd @ 3% O2 or 0.0042 lb/MMBtu, referenced as methane. [District Rule 2201]

29. NH3 emissions shall not exceed 10 ppmvd @ 3% O2. [District Rule 2201]

30. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]

31. 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]

32. Source testing to measure startup and shutdown NOx and CO emissions shall be conducted within 60 days of initial startup under this permit. CEMS relative accuracy for NOx and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). [District Rule 2201]

33. Source testing to measure steady state NOx, CO, VOC and NH3 emissions shall be conducted within 60-days of the initial startup. [District Rules 2201, 4305, 4306 and 4320]

34. Source testing to measure NOx, CO and NH3 emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 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 12 months. [District Rules 4305, 4306 and 4320]

35. 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, 4306 and 4320]

36. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320]

37. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320]

38. VOC emissions for source test purpose shall be determined using EPA Method 18, 25A, or other District approved alternative method. [District Rule 2201]

39. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320]

40. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 2201]

41. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]

42. 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 4320. [District Rules 4305, 4306 and 4320]

43. 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, 4306 and 4320]

44. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

CONDITIONS CONTINUE ON NEXT PAGE
45. The permittee shall maintain the following records for CEMS malfunction:

- **Date, time and duration of any calibration, checks, and adjustments**;
- **Date and time period for which CEMS was operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments.** [40 CFR 60.48b(c)]
- **The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA.** [District Rules 1080, 2201, 4305, 4306 and 4320]
- **The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS. Span value for NOx shall be 500 ppmv.** [40 CFR 60.48b(e)(2)]
- **The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments.** [40 CFR 60.48b(c)]
- **The CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2) for NOx, Appendix B PS 4A for CO, and Appendix B PS 3 for O2 or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA.** [District Rules 1080, 2201, 4305, 4306 and 4320]
- **The owner/operator shall perform a RATA for NOx, CO and O2 as specified by 40 CFR Part 60, Appendix F, 5.1.1, NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F, 5.1, NOx, CO and O2 CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District.** [District Rules 1080, 2201, 4305, 4306 and 4320]
- **APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly.** [District Rules 1080, 2201, 4305, 4306 and 4320]
- **The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis.** [District Rule 1080]
- **The permittee shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative.** [District Rule 1080]
59. The owner or operator shall submit the performance test data and the performance evaluation of the CEMS using performance specification 2 (PS 2) for NOx, PS 4A for CO, and PS3 for O2 in 40 CFR Part 60 Appendix B. [40 CFR 60.49b(b)]

60. For 40 CFR Part 60 Subpart Db purpose, NOx emissions shall not exceed 0.1 lb/MMBtu for low heat release units (70,000 Btu/hr-ft³ of furnace volume or less) and 0.2 lb/MMBtu for high heat release units (greater than 70,000 Btu/hr-ft³ of furnace volume) on a 30-day rolling average basis. NOx standard shall apply at all times including periods of startup, shutdown, or malfunction. The permittee shall maintain record of the furnace volume, which is defined as the volume bounded by the front furnace wall where the burner is located, the furnace side waterfall, and extending to the level just below or in front of the first row of convection pass tubes. [40 CFR 60.44b(a), 60.44b(h), 60.44b(i)]

61. For the initial compliance test under 40 CFR Part 60 Subpart Db, NOx emissions shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the NOx emission standard under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft³ of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft³ of furnace volume)). The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [40 CFR 60.46b(e)(1)]

62. Following the initial compliance test, the operator shall upon request determine compliance with the NOx standard under 40 CFR 60.44 (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft³ of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft³ of furnace volume)) through the use of a 30-day performance test. During periods when performance tests are not requested, NOx emissions data collected pursuant to §60.48b(g)(1) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NOx emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(4)]

63. The 1-hour average NOx emission rates measured by the continuous NOx monitor shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft³ of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft³ of furnace volume)). The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)]

64. When NOx data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)]

65. The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)]

66. The owner or operator shall monitor and record the higher heating value (HHV) of the fuel combusted in this unit. The HHV shall be certified by thirty party fuel supplied or determined annually using ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 4351]

67. The owner or operator shall maintain records of the cumulative annual use of the fuel combusted in this unit. [District Rule 4351]

68. The owner or operator shall maintain records of the annual capacity factor on a monthly basis. The annual capacity factor shall be determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR 60.49b(d)(1)]
69. The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dsf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)]

70. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NOx and CO emission rates (expressed as NO2) (ppmv d @ 3% O2 and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NOx emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft3 of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft3 of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NOx and CO emission rates are in excess of the NOx and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)]

71. The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)]

72. The owner or operator shall keep records of the date and time, measured NH3 concentration, O2 concentration in percent, and NH3 concentration corrected to 3% O2. [District Rule 2201]

73. The owner or operator shall keep records of the date, duration of each startup (hours), duration of each shutdown (hours), heat input rate during startup (MMBtu), and heat input rate during shutdown (MMBtu). [District Rule 2201]

74. The owner or operator shall keep records of the total duration of startups and shutdowns (hours) on a rolling 12 consecutive month total basis, and shall be updated at least monthly. [District Rule 2201]

75. The owner or operator shall keep records of the facility-wide NOx and VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

76. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)]

77. 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 or Rule 8041. [District Rules 8011 and 8021]
Conditions for N-8887-2-0 (continued)

78. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

79. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

80. 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 or Rule 8011. [District Rules 8011 and 8051]

81. 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 or Rule 8011. [District Rules 8011 and 8061]

82. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

83. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

84. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

85. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

86. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]

87. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201]

88. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2010]

89. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201]

90. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or increase in firing rate may be authorized for any alternate equipment. [District Rule 2201]
AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-3-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304
9251 W ARBOR AVE
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
DISTILLER BEET RECEIVING, STORAGE, AND PROCESSING OPERATIONS CONSISTING OF BEET RECEIVING HOPPER(S), WASHING, SLICING, SUCROSE EXTRACTION TOWER, PULP PRESSES, STERILIZER, AND ASSOCIATED CONVEYING EQUIPMENT

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. 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]

3. 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]

4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

5. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

6. {15} 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. Each load of distiller beets shall be processed within 24-hour of receiving. [District Rule 4102]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
N-8887-3-0 : Dec 11 2014 4:15PM : KAHR010 : Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
8. The sucrose extraction tower, pulp pressures, sterilizer and associated conveying system shall be fully enclosed with no air vents to the atmosphere. [District Rule 4102]

9. The amount of material received shall not exceed any of the following limits: 5,500 tons/day and 1.73 million tons/year. [District Rule 2201]

10. PM10 emissions from material receiving, storage and processing operations shall not exceed 5.5E-05 pounds per ton of material received. [District Rule 2201]

11. The owner or operator shall keep records of the date and amount of material received (tons). [District Rule 2201]

12. The owner or operator shall keep records of the material received (tons) during a 12-consecutive month period. [District Rule 2201]

13. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

14. 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 or Rule 8011. [District Rules 8011 and 8021]

15. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

16. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

17. 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 or Rule 8011. [District Rules 8011 and 8051]

18. 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 or Rule 8011. [District Rules 8011 and 8061]

19. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

20. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

21. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

22. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

23. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust-generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-4-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
FOUR YEAST TANKS (40 GALLON, 2,260 GALLON, 1,807 GALLON AND 11,360 GALLON PROCESS TANKS), AND
TWO 79,251 GALLON (EACH) FIXED ROOF PRE-FERMENTER TANKS SERVED BY AN AMERICAN
ENVIRONMENTAL (OR EQUIVALENT VENDOR) VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-
8887-4, '-7, '-9, '-10, AND '-11)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits
   within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period.
   [District Rule 2201]

3. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator
   shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and
   4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of
   Rule 2201 (4/21/11). [District Rule 2201]

4. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC
   offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this
   Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original
   public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit.
   [District Rule 2201]

5. 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]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO
OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE.
Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the
approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all
Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this
Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with
all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolletr - Director of Permit Services
6. 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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

8. 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]

9. Controlled VOC emissions rate from the yeast and pre-fermenter tanks served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

10. The combined controlled VOC emissions rate from the yeast preparation and pre-fermenter tanks, yeast cream separation operation, distillation operation, process condensate tank and vinasse processing, storage and loadout operation all served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

11. Controlled VOC emissions rate from the yeast and pre-fermenter tanks served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

12. Fugitive VOC emissions from component leaks shall not exceed 1.0 pounds during any one day. [District Rule 2201]

13. 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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [District Rule 2201]

14. 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. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

15. 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]

16. 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]

17. Source testing to demonstrate compliance with the VOC emission limit and the 95% control efficiency of the vent gas scrubber shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. [District Rules 2201 and 4623]

18. 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]

19. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201]

20. During source testing, the owner or operator shall maintain records of the amount of ethanol produced, in gal-ethanol/hour. [District Rule 2201]

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

22. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]

23. During the initial source test, the owner or operator shall establish surrogate parameters (e.g., minimum water flow rate through the scrubber, minimum water temperature, or others similar parameters etc.) per manufacturer's recommendation that will ensure on-going compliance with VOC emissions limits and scrubber control efficiency. These parameters shall be included in the Permit to Operate. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE
24. The owner or operator shall monitor and record the parameters established for the vent gas scrubber at least once every day. [District Rule 2201]

25. The owner or operator shall operate the vent gas scrubber in accordance parameters established during the initial source test. Any excursion from the established parameter shall be corrected, as soon as possible, but no longer than 1 hour of operation after detection. If the excursion continues after 1 hour of operation after detection, the owner or operator shall notify the District within the following 1 hour. The owner or operator must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]

26. The owner or operator shall maintain records of the date, name of the parameter established for the vent gas scrubber, reading of the parameter, and a description of any corrective action taken to operate the vent gas scrubber in accordance with the established parameters. [District Rule 2201]

27. The owner or operator shall maintain daily and monthly records, in gallons, of the quantity of ethanol produced at this facility. The monthly records shall be used to determine quantity of ethanol produced in a 12-month rolling period. [District Rule 2201]

28. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

29. 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]

30. 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]

31. 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]

32. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

33. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [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. 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 re-inspected 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 and 5.2.2]

36. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]
37. 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]

38. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

39. 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]

40. 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]

41. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

42. 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]

43. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

44. 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]

45. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

46. 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]
47. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

48. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

49. Prior to the implementation of Authority to Construct permits N-8887-4 through '14, '17 and '18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

50. 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 and 6.1.4]

51. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

52. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

53. 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 Rule 4455. [District Rule 4455, 6.4]

54. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

55. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

56. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

57. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

58. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]
59. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

60. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

61. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

62. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (e), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

63. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

64. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

65. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

66. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

67. 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 60.482-3a(d), (e), and (f)]

68. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

69. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

70. 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 60.4 through (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 60.482-3a(a) through (e), and (h). [40 CFR 60.482-3(j)]
71. 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 60.485a(c). [40 CFR 60.482-4a(a) and District Rule 2201]

72. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

73. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]

74. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

75. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

76. 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 60.482-1a(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 60.482-6a(a) and (c)]

77. 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 60.482-6a(b)]

78. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

79. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

80. 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 60.482-7a(b) and shall comply with 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

81. 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 60.482-7a(c)]

82. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]
83. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

84. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

85. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

86. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

87. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, it shall be repaired as soon as practical, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

88. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

89. 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 ppmv, 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 °C. [40 CFR 60.482-10a(c)]

90. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

91. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

92. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

93. 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 60.482-10a(h)]

CONDITIONS CONTINUE ON NEXT PAGE
94. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)]

95. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(I)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

96. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(I)(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 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]

97. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(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 60.482-10a(l)]

98. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

99. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

100. Except as allowed in 40 CFR 60.482-1a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

101. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

102. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

103. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.482-11a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]
104. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]

105. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

106. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

107. 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 VVa. [40 CFR 60.484a(a)]

108. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(b) and District Rule 2201]

109. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

110. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

111. 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, E168, E169 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 60.485a(d)]
112. 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 øC (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 øC (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

113. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

114. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

115. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

116. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.482-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

117. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.482-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

118. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]
119. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 40 CFR 60.482-4a, and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

120. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

121. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

122. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

123. 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 60.480a(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 60.486a(i)]

124. 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 60.486a(j)]

125. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

126. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]
127. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 60 CFR 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 60 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 60 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 60 CFR 60.482-2a(e) and those pumps complying with 60 CFR 60.482-2af(f); 4) Number of compressors subject to the requirements of 60 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 60 CFR 60.482-3a(i) and those compressors complying with 60 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 60 CFR 60.482-11a. [40 CFR 60.487a(b)]

128. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.482-3a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

129. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]

130. 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 VVa 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 60.487a(e)]

131. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

132. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

133. 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 or Rule 8011. [District Rules 8011 and 8021]

134. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

135. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

136. 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 or Rule 8011. [District Rules 8011 and 8051]

137. 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 or Rule 8041. [District Rules 8011 and 8061]
138. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

139. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

140. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

141. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

142. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-5-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
FERMENTATION PROCESS CONSISTING OF FOUR 526,295 GALLON (EACH) FIXED ROOF FERMENTATION TANKS, ALL SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) CO2 WET SCRUBBER WITH CONDENSER SYSTEM (SCRUBBER SHARED WITH PERMITS N-8887-5, '-6 AND '-8)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

4. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

5. 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]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

Amaud Marjollet, Director of Permit Services
N-8887-5-0 Dec 11 2014 4:18PM KAR LRJO: Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
6. 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

8. {15} 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]

9. The control efficiency for the CO2 scrubber with condenser system shall be a minimum of 99.5% for VOC emissions. [District Rule 2201]

10. Controlled VOC emissions rate from the fermentation tanks served by the CO2 scrubber with condenser system shall not exceed 0.0626 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

11. The combined controlled VOC emissions rate from the fermentation tanks, a beerwell tank, and fermented wash holding process tank all served by the CO2 scrubber with condenser system shall not exceed 0.0626 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

12. The ethanol production rate shall not exceed any of the following limits: 135,000 gallons/day and 40 million gallons/year (12-month rolling basis). [District Rule 2201]

13. Fugitive VOC emissions from component leaks shall not exceed 4.1 pounds during any one day. [District Rule 2201]

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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [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. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [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. Source testing to demonstrate compliance with the VOC emission limit and the 99.5% control efficiency of the scrubber and condenser system shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. [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 for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201]

21. During source testing, the owner or operator shall maintain records of the amount of ethanol produced, in gal-ethanol/hour. [District Rule 2201]

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

23. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]

24. During the initial source test, the owner or operator shall establish surrogate parameters (e.g., minimum water flow rate through the CO2 scrubber, minimum water temperature, or other similar parameters etc.) per manufacturer's recommendation that will ensure on-going compliance with VOC emissions limits and scrubber control efficiency. These parameters shall be included in the Permit to Operate. [District Rule 2201]
25. The owner or operator shall monitor and record the parameters established for the CO2 scrubber and condenser system at least once every day. [District Rule 2201]

26. The owner or operator shall operate the CO2 scrubber with condenser system in accordance parameters established during the initial source test. Any excursion from the established parameter shall be corrected, as soon as possible, but no longer than 1 hour of operation after detection. If the excursion continues after 1 hour of operation after detection, the owner or operator shall notify the District within the following 1 hour. The owner or operator must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]

27. The owner or operator shall maintain records of the date, name of the parameter established for the CO2 scrubber and condenser system, reading of the parameter, and a description of any corrective action taken to operate the CO2 scrubber with condenser system in accordance with the established parameters. [District Rule 2201]

28. The owner or operator shall maintain daily and monthly records, in gallons, of the quantity of ethanol produced at this facility. The monthly records shall be used to determine quantity of ethanol produced in a 12-month rolling period. [District Rule 2201]

29. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

30. 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]

31. 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]

32. 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]

33. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

34. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [District Rules 2201 and 4455, 5.1.4]

35. 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]

36. 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 re-inspected 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 and 5.2.2]

37. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]
38. 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]

39. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

40. 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]

41. 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]

42. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

43. 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]

44. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

45. 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]

46. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

47. 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]
48. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

49. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

50. Prior to the implementation of Authority to Construct permits N-8887-4 through '14, '17 and '18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

51. 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 and 6.1.4]

52. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

53. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

54. 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 Rule 4455. [District Rule 4455, 6.4]

55. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480(a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

56. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

57. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

58. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

59. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486(a(e)(5). [40 CFR 60.482-1a(d)]
60. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

61. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

62. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

63. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

64. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

65. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

66. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

67. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

68. 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 60.482-3a(d), (e), and (f)]

69. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

70. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

71. 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 60.482-3a(a) through (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 60.482-3a(a) through (e), and (h). [40 CFR 60.482-3(j)]
72. 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 60.485a(c). [40 CFR 60.482-4a(a) and District Rule 2201]

73. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

74. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]

75. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

76. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

77. 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 60.482-1a(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 60.482-6a(a) and (c)]

78. 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 60.482-6a(b)]

79. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

80. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

81. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

82. 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 60.482-7a(c)]

83. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]
84. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]  
85. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]  
86. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]  
87. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]  
88. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]  
89. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]  
90. 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 ppmv, 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 øC. [40 CFR 60.482-10a(c)]  
91. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]  
92. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]  
93. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]  
94. 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 60.482-10a(h)]
95. 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(a)(1)(i) and (f)(2). [40 CFR 60.482-10(i)]

96. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(a)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(a)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(a)(j)(1) and (j)(2). [40 CFR 60.482-10(j)]

97. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(a)(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(a)(k)(1) through (k)(3). [40 CFR 60.482-10(k)]

98. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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(a)(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(a)(l)]

99. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(a)(m)]

100. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

101. Except as allowed in 40 CFR 60.482-11a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

102. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

103. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

104. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]
105. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or
ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-I
(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting
requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried;
(ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or
piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift
or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v)
Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a
permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a
safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on
unsuitable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access
would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any
inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be
leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as
practical. [40 CFR 60.682-11a(f)]

106. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of
40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart.
Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the
provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-
11a(g)]

107. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid
service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in
writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

108. 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 VVa. [40 CFR 60.484a(a)]

109. 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
60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)]

110. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a,
60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the
procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485(b) and District Rule 2201]

111. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e),
60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

112. 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, E168, E169 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 60.485a(d)]
113. 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. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 °C (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

114. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

115. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

116. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

117. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(e) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

118. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak ; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

119. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]
120. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 40 CFR 60.482-4a, and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

121. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

122. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

123. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

124. 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 60.480a(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 60.486a(i)]

125. 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 60.486a(j)]

126. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

127. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]
128. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

129. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

130. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]

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 VVe 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 60.487a(e)]

132. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

133. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

134. {3433} 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 or Rule 8011. [District Rules 8011 and 8021]

135. {3434} An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

136. {3435} 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 (8/19/04) or Rule 8011 (8/19/04). [District Rules 8011 and 8021]

137. {3436} 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 or Rule 8011. [District Rules 8011 and 8051]

138. {3437} 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 or Rule 8011. [District Rules 8011 and 8061]
139. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

140. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

141. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

142. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

143. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-6-0
LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
ONE 686,847 GALLON FIXED ROOF BEERWELL PROCESS TANK SERVED BY AN AMERICAN ENVIRONMENTAL
(OR EQUIVALENT VENDOR) CO2 WET SCRUBBER WITH WITH CONDENSER SYSTEM (SCRUBBER SHARED WITH
PERMITS N-8887-5, '-6 AND '-8)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

4. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

5. 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]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This IS NOT a PERMIT TO OPERATE Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director TAPCO

Amaud Marjollel, Director of Permit Services

N-8887-6-0: Dec 11 2014 4:19PM - KAHLOU: Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
6. 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

8. {15} 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]

9. The control efficiency for the CO2 scrubber with condenser system shall be a minimum of 99.5% for VOC emissions. [District Rule 2201]

10. Controlled VOC emissions rate from the beerwell tank served by the CO2 scrubber with condenser system shall not exceed 0.0626 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

11. The combined controlled VOC emissions rate from the fermentation tanks, a beerwell tank, and fermented wash holding process tank all served by the CO2 scrubber with condenser system shall not exceed 0.0626 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

12. The ethanol production rate shall not exceed any of the following limits: 135,000 gallons/day and 40 million gallons/year (12-month rolling basis). [District Rule 2201]

13. Fugitive VOC emissions from component leaks shall not exceed 1.2 pounds during any one day. [District Rule 2201]

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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [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. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [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. Source testing to demonstrate compliance with the VOC emission limit and the 99.5% control efficiency of the scrubber and condenser system shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. [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 for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of 'VOC Mass Emissions' at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201]

21. During source testing, the owner or operator shall maintain records of the amount of ethanol produced, in gal-ethanol/hour. [District Rule 2201]

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

23. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]

24. During the initial source test, the owner or operator shall establish surrogate parameters (e.g., minimum water flow rate through the CO2 scrubber, minimum water temperature, or other similar parameters etc.) per manufacturer's recommendation that will ensure on-going compliance with VOC emissions limits and scrubber control efficiency. These parameters shall be included in the Permit to Operate. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE
25. The owner or operator shall monitor and record the parameters established for the CO2 scrubber and condenser system at least once every day. [District Rule 2201]

26. The owner or operator shall operate the CO2 scrubber with condenser system in accordance parameters established during the initial source test. Any excursion from the established parameter shall be corrected, as soon as possible, but no longer than 1 hour of operation after detection. If the excursion continues after 1 hour of operation after detection, the owner or operator shall notify the District within the following 1 hour. The owner or operator must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]

27. The owner or operator shall maintain records of the date, name of the parameter established for the CO2 scrubber and condenser system, reading of the parameter, and a description of any corrective action taken to operate the CO2 scrubber with condenser system in accordance with the established parameters. [District Rule 2201]

28. The owner or operator shall maintain daily and monthly records, in gallons, of the quantity of ethanol produced at this facility. The monthly records shall be used to determine quantity of ethanol produced in a 12-month rolling period. [District Rule 2201]

29. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

30. 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]

31. 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]

32. 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]

33. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

34. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [District Rules 2201 and 4455, 5.1.4]

35. 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]

36. 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 re-inspected 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 and 5.2.2]

37. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]
38. 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]

39. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

40. 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]

41. 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]

42. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

43. 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]

44. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

45. 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]

46. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

47. 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]
48. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

49. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

50. Prior to the implementation of Authority to Construct permits N-8887-4 through '-14, '-17 and '-18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

51. 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 and 6.1.4]

52. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

53. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

54. 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 Rule 4455. [District Rule 4455, 6.4]

55. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-la through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

56. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

57. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

58. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

59. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]
60. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

61. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

62. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

63. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

64. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

65. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

66. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

67. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

68. 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 60.482-3a(d), (e), and (f)]

69. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

70. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

71. 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 60.482-3a(a) through (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 60.482-3a(a) through (e), and (h). [40 CFR 60.482-3(j)]
72. 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 60.485a(c). [40 CFR 60.482-4a(a) and District Rule 2201]

73. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

74. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]

75. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

76. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

77. 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 60.482-1a(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 60.482-6a(a) and (c)]

78. 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 60.482-6a(b)]

79. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

80. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

81. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

82. 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 60.482-7a(c)]

83. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]
84. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

85. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

86. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

87. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

88. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

89. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

90. 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 ppmv, 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 øC. [40 CFR 60.482-10a(c)]

91. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

92. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

93. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

94. 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 60.482-10a(h)]

CONDITIONS CONTINUE ON NEXT PAGE
95. 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(a)(1) and (f)(2). [40 CFR 60.482-10(a)(i)]

96. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(a)(1) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

97. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(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 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]

98. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(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 60.482-10a(l)]

99. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

100. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

101. Except as allowed in 40 CFR 60.482-11a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

102. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

103. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

104. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]
105. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]

106. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

107. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

108. 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 VVa. [40 CFR 60.484a(a)]

109. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(b) and District Rule 2201]

110. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

111. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

112. 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, E168, E169 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 60.485a(d)]
113. 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. H₂O at 68 degrees F). Standard reference texts or ASTM D2879 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°C (1.2 in. H₂O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

114. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

115. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

116. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

117. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

118. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

119. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]
120. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), and 40 CFR 60.482-4a, and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

121. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

122. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

123. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

124. 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 60.480a(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 60.486a(i)]

125. 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 60.486a(j)]

126. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

127. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]
128. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 40 CFR 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

129. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(i)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

130. An owner or operator electing to comply with the provisions of 40 CFR 60.483-2a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]

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 VVa 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 60.487a(e)]

132. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

133. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

134. 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 or Rule 8011. [District Rules 8011 and 8021]

135. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

136. 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 (8/19/04) or Rule 8011. [District Rules 8011 and 8021]

137. 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 or Rule 8011. [District Rules 8011 and 8051]

138. 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. [District Rules 8011 and 8061]
139. (3438) Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

140. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

141. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

142. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

143. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-7-0
LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
TWO FULLY ENCLOSED YEAST CREAM SEPARATORS, AND A 7,132 GALLON YEAST CREAM COLLECTION TANK,
ALL SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) VENT GAS SCRUBBER
(SCRUBBER SHARED WITH PERMITS N-8887-4, '-7, '-9, '-10, AND '-11)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits
   within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period.
   [District Rule 2201]

3. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator
   shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and
   4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of
   Rule 2201 (4/21/11). [District Rule 2201]

4. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC
   offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this
   Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original
   public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit.
   [District Rule 2201]

5. 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]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO
OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE.
Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with
the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all
Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this
Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with
all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyad Sadredin, Executive Director APCO

Arnaud Marjollel—Director of Permit Services
M-8987-7-0  Dec 11 2014 4:18PM  KHLOU : Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
6. 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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

8. 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]

9. Controlled VOC emissions rate from the yeast cream separation operation served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

10. The combined controlled VOC emissions rate from the yeast preparation and pre-fermenter tanks, yeast cream separation operation, distillation operation, process condensate tank and vinasse processing, storage and loadout operation all served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

11. The ethanol production rate shall not exceed any of the following limits: 135,000 gallons/day and 40 million gallons/year (12-month rolling basis). [District Rule 2201]

12. Fugitive VOC emissions from component leaks shall not exceed 0.3 pounds during any one day. [District Rule 2201]

13. 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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [District Rule 2201]

14. 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. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

15. 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]

16. 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]

17. Source testing to demonstrate compliance with the VOC emission limit and the 95% control efficiency of the vent gas scrubber shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. [District Rules 2201 and 4623]

18. 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]

19. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201]

20. During source testing, the owner or operator shall maintain records of the amount of ethanol produced, in gal-ethanol/hour. [District Rule 2201]

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

22. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]

23. During the initial source test, the owner or operator shall establish surrogate parameters (e.g., minimum water flow rate through the scrubber, minimum water temperature, or others similar parameters etc.) per manufacturer's recommendation that will ensure on-going compliance with VOC emissions limits and scrubber control efficiency. These parameters shall be included in the Permit to Operate. [District Rule 2201]
24. The owner or operator shall monitor and record the parameters established for the vent gas scrubber at least once every day. [District Rule 2201]

25. The owner or operator shall operate the vent gas scrubber in accordance parameters established during the initial source test. Any excursion from the established parameter shall be corrected, as soon as possible, but no longer than 1 hour of operation after detection. If the excursion continues after 1 hour of operation after detection, the owner or operator shall notify the District within the following 1 hour. The owner or operator must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]

26. The owner or operator shall maintain records of the date, name of the parameter established for the vent gas scrubber, reading of the parameter, and a description of any corrective action taken to operate the vent gas scrubber in accordance with the established parameters. [District Rule 2201]

27. The owner or operator shall maintain daily and monthly records, in gallons, of the quantity of ethanol produced at this facility. The monthly records shall be used to determine quantity of ethanol produced in a 12-month rolling period. [District Rule 2201]

28. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

29. 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]

30. 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]

31. 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]

32. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

33. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [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. 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 re-inspected 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 and 5.2.2]

36. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]
37. 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]

38. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

39. 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]

40. 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]

41. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

42. 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]

43. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

44. 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]

45. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

46. 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]
47. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

48. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

49. Prior to the implementation of Authority to Construct permits N-8887-4 through '14, '17 and '18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

50. 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 and 6.1.4]

51. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

52. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

53. 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 Rule 4455. [District Rule 4455, 6.4]

54. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

55. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

56. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

57. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

58. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]
59. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

60. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

61. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

62. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

63. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

64. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

65. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

66. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

67. 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 60.482-3a(d), (e), and (f)]

68. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

69. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

70. 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 4 through (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 60.482-3a(a) through (e), and (h). [40 CFR 60.482-3(j)]
71. 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 60.485a(c). [40 CFR 60.482-4(a) and District Rule 2201]

72. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4(b) and District Rule 2201]

73. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)]

74. 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 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 60.482-9a. [40 CFR 60.482-4(d)]

75. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

76. 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 60.482-1a(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 60.482-6a(a) and (c)]

77. 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 60.482-6a(b)]

78. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

79. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

80. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

81. 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 60.482-7a(c)]

82. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]
83. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(6)(2), as no detectable emissions, as indicated by an instrument reading of less than 100 ppmv above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

84. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(6)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

85. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(6)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

86. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid service, the owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

87. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

88. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

89. 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 ppmv, 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 °C. [40 CFR 60.482-10a(c)]

90. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

91. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

92. Except as provided in 40 CFR 60.482-10a(f) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

93. 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 60.482-10a(h)]
94. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)]

95. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

96. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(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 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]

97. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(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 60.482-10a(l)]

98. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

99. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

100. Except as allowed in 40 CFR 60.482-1a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

101. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

102. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

103. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]
104. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]

105. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

106. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

107. 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 VVa. [40 CFR 60.484a(a)]

108. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(b) and District Rule 2201]

109. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

110. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

111. 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, E168, E169 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 60.485a(d)]
112. 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. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 °C (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

113. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

114. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

115. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

116. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

117. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak ; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

118. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]
119. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 40 CFR 60.482-4a, and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

120. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

121. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

122. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

123. 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 60.480a(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 60.486a(i)]

124. 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 60.486a(j)]

125. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

126. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]
127. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

128. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

129. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]

130. 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 60.487a(e)]

131. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

132. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

133. {3433} 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 or Rule 8011. [District Rules 8011 and 8021]

134. {3434} An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

135. {3435} 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

136. {3436} 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 or Rule 8011. [District Rules 8011 and 8051]

137. {3437} 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 or Rule 8011. [District Rules 8011 and 8061]
138. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

139. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

140. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

141. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

142. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-8-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
ONE 230,448 GALLON FIXED ROOF FERMENTED WASH HOLDING PROCESS TANK SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) CO2 WET SCRUBBER WITH CONDENSER SYSTEM (SCRUBBER SHARED WITH PERMITS N-8887-5, -6 AND -8)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. Prior to operating under ATCs N-8887-1-0, -2-0, -4-0 through -14-0 and -16-0 through -18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

4. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

5. 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]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director I APCO

Amaud Marjolle, Director of Permit Services
N.0087-8-0; Dec 11 2014 4:19PM - KAIO.OAI : Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
6. 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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

8. 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]

9. The control efficiency for the CO2 scrubber with condenser system shall be a minimum of 99.5% for VOC emissions. [District Rule 2201]

10. Controlled VOC emissions rate from the fermented wash holding process tank served by the CO2 scrubber with condenser system shall not exceed 0.0626 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

11. Controlled VOC emissions rate from the fermentation tanks, a beerwell tank, and fermented wash holding process tank all served by the CO2 scrubber with condenser system shall not exceed 0.0626 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

12. The ethanol production rate shall not exceed any of the following limits: 135,000 gallons/day and 40 million gallons/year (12-month rolling basis). [District Rule 2201]

13. Fugitive VOC emissions from component leaks shall not exceed 1.0 pounds during any one day. [District Rule 2201]

14. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-4531R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors and control effectiveness for the Leak Detection and Repair (LDAR) program. [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. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [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. Source testing to demonstrate compliance with the VOC emission limit and the 99.5% control efficiency of the scrubber and condenser system shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. [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 for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201]

21. During source testing, the owner or operator shall maintain records of the amount of ethanol produced, in gal-ethanol/hour. [District Rule 2201]

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

23. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]

24. During the initial source test, the owner or operator shall establish surrogate parameters (e.g., minimum water flow rate through the CO2 scrubber, minimum water temperatures, or other similar parameters etc.) per manufacturer's recommendation that will ensure on-going compliance with VOC emissions limits and scrubber control efficiency. These parameters shall be included in the Permit to Operate. [District Rule 2201]
25. The owner or operator shall monitor and record the parameters established for the CO2 scrubber and condenser system at least once every day. [District Rule 2201]

26. The owner or operator shall operate the CO2 scrubber with condenser system in accordance parameters established during the initial source test. Any excursion from the established parameter shall be corrected, as soon as possible, but no longer than 1 hour of operation after detection. If the excursion continues after 1 hour of operation after detection, the owner or operator shall notify the District within the following 1 hour. The owner or operator must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]

27. The owner or operator shall maintain records of the date, name of the parameter established for the CO2 scrubber and condenser system, reading of the parameter, and a description of any corrective action taken to operate the CO2 scrubber with condenser system in accordance with the established parameters. [District Rule 2201]

28. The owner or operator shall maintain daily and monthly records, in gallons, of the quantity of ethanol produced at this facility. The monthly records shall be used to determine quantity of ethanol produced in a 12-month rolling period. [District Rule 2201]

29. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

30. 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]

31. 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]

32. 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]

33. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 00 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

34. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [District Rules 2201 and 4455, 5.1.4]

35. 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]

36. 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 re-inspected 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 and 5.2.2]

37. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]
38. 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]

39. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

40. 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]

41. 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]

42. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

43. 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]

44. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

45. 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]

46. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

47. 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]
48. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

49. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

50. Prior to the implementation of Authority to Construct permits N-8887-4 through '-14, '-17 and '-18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

51. 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 and 6.1.4]

52. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

53. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

54. 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 Rule 4455. [District Rule 4455, 6.4]

55. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VV(a) shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

56. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

57. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

58. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

59. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]
60. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

61. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

62. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

63. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

64. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

65. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

66. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

67. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

68. 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 60.482-3a(d), (e), and (f)]

69. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

70. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(l) and District Rule 2201]

71. 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 60.482-3a(a) through (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 60.482-3a(a) through (e), and (h). [40 CFR 60.482-3(i)]
72. 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 60.485a(c). [40 CFR 60.482-4a(a) and District Rule 2201]

73. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

74. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]

75. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

76. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

77. 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 60.482-1a(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 60.482-6a(a) and (c)]

78. 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 60.482-6a(b)]

79. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

80. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

81. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

82. 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 60.482-7a(c)]

83. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]
84. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

85. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

86. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

87. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

88. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

89. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

90. 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 ppmv, 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 øC. [40 CFR 60.482-10a(c)]

91. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

92. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

93. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

94. 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 60.482-10a(h)]

CONDITIONS CONTINUE ON NEXT PAGE
95. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)]

96. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

97. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]

98. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(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 60.482-10a(l)]

99. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

100. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

101. Except as allowed in 40 CFR 60.482-10a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

102. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

103. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

104. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]
105. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]

106. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

107. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

108. 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 VVa. [40 CFR 60.484a(a)]

109. 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 60.8a, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(b) and District Rule 2201]

110. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

111. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

112. 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, E168, E169 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 60.485a(d)]
113. 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 øC (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 øC (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

114. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

115. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

116. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

117. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

118. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

119. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]
120. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

121. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

122. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

123. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

124. 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 60.480a(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 60.486a(i)]

125. 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 60.486a(j)]

126. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

127. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]
128. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 40 CFR 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

129. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(3)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

130. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]

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 60.487a(e)]

132. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

133. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

134. 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 or Rule 8011. [District Rules 8011 and 8021]

135. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

136. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

137. 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 or Rule 8011. [District Rules 8011 and 8051]

138. 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 or Rule 8011. [District Rules 8011 and 8061]

CONDITIONS CONTINUE ON NEXT PAGE
139. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other
District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust
Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59
of District Rule 8011. [District Rule 8011 and 8071]

140. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed
daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to
maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of
District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

141. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will
occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic
dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit
Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in
Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

142. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize
any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule
8011. [District Rules 8011 and 8071]

143. Records and other supporting documentation shall be maintained as required to demonstrate compliance with
the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such
records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount,
and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that
identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following
project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-9-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
DISTILLATION PROCESS CONSISTING OF A DEGASIFYING COLUMN, ANALYZER COLUMN, A RECTIFIER FEED
PROCESS TANK, RECTIFIER/EXHAUST COLUMN, A RECTIFIER REFLUX TANK, AND TWO MOLECULAR SIEVES,
ALL SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) VENT GAS SCRUBBER
(SCRUBBER SHARED WITH PERMITS N-8887-4, '-7, '-9, '-10, AND '-11)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits
   within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period.
   [District Rule 2201]

3. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator
   shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and
   4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of
   Rule 2201 (4/21/11). [District Rule 2201]

4. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC
   offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this
   Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original
   public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit.
   [District Rule 2201]

5. 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]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO
OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE.
Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the
approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all
Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this
Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with
all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

Amaud Marjollet, Director of Permit Services
N-8887-9-0: 12/13/2014 4:18 PM • KOHLON • Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
6. 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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

8. 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]

9. Controlled VOC emissions rate from the distillation operation served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

10. The combined controlled VOC emissions rate from the yeast preparation and pre-fermenter tanks, yeast cream separation operation, distillation operation, process condensate tank and vinasse processing, storage and loadout operation all served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

11. The ethanol production rate shall not exceed any of the following limits: 135,000 gallons/day and 40 million gallons/year (12-month rolling basis). [District Rule 2201]

12. Fugitive VOC emissions from component leaks shall not exceed 7.6 pounds during any one day. [District Rule 2201]

13. 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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [District Rule 2201]

14. 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. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

15. 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]

16. 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]

17. Source testing to demonstrate compliance with the VOC emission limit and the 95% control efficiency of the vent gas scrubber shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. [District Rules 2201 and 4623]

18. 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]

19. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201]

20. During source testing, the owner or operator shall maintain records of the amount of ethanol produced, in gal-ethanol/hour. [District Rule 2201]

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

22. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]

23. During the initial source test, the owner or operator shall establish surrogate parameters (e.g., minimum water flow rate through the scrubber, minimum water temperature, or others similar parameters etc.) per manufacturer's recommendation that will ensure on-going compliance with VOC emissions limits and scrubber control efficiency. These parameters shall be included in the Permit to Operate. [District Rule 2201]
24. The owner or operator shall monitor and record the parameters established for the vent gas scrubber at least once every day. [District Rule 2201]

25. The owner or operator shall operate the vent gas scrubber in accordance with parameters established during the initial source test. Any excursion from the established parameter shall be corrected, as soon as possible, but no longer than 1 hour of operation after detection. If the excursion continues after 1 hour of operation after detection, the owner or operator shall notify the District within the following 1 hour. The owner or operator must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]

26. The owner or operator shall maintain records of the date, name of the parameter established for the vent gas scrubber, reading of the parameter, and a description of any corrective action taken to operate the vent gas scrubber in accordance with the established parameters. [District Rule 2201]

27. The owner or operator shall maintain daily and monthly records, in gallons, of the quantity of ethanol produced at this facility. The monthly records shall be used to determine quantity of ethanol produced in a 12-month rolling period. [District Rule 2201]

28. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

29. 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]

30. 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]

31. 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]

32. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

33. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [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. 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 re-inspected 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 and 5.2.2]

36. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]
37. 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]

38. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

39. 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]

40. 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]

41. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

42. 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]

43. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

44. 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]

45. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

46. 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]
47. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

48. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

49. Prior to the implementation of Authority to Construct permits N-8887-4 through '14, '17 and '18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

50. 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 and 6.1.4]

51. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

52. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

53. 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 Rule 4455. [District Rule 4455, 6.3]

54. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

55. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

56. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

57. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

58. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]
59. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

60. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

61. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

62. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

63. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

64. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

65. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

66. 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 60.482-3a(c), (h) and (j). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

67. 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 60.482-3a(d), (e), and (f)]

68. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

69. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

70. 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 through (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 60.482-3a(a) through (e), and (h). [40 CFR 60.482-3(j)]
71. 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 60.485a(c). [40 CFR 60.482-4a(a) and District Rule 2201]

72. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

73. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]

74. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

75. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

76. 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 60.482-1a(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 60.482-6a(a) and (c)]

77. 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 60.482-6a(b)]

78. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

79. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

80. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h). 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

81. 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 60.482-7a(c)]

82. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]
83. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

84. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

85. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

86. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

87. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

88. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

89. 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 ppmv, 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 ºC. [40 CFR 60.482-10a(c)]

90. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

91. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

92. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

93. 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 60.482-10a(h)]

CONDITIONS CONTINUE ON NEXT PAGE
94. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(i)(1) and (f)(2). [40 CFR 60.482-10a(i)]

95. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(i)(1) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

96. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(l)(1) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]

97. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(l)(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 60.482-10a(l)]

98. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

99. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

100. Except as allowed in 40 CFR 60.482-1a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

101. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

102. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

103. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]
104. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]

105. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

106. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

107. 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 VVa. [40 CFR 60.484a(a)]

108. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)]

109. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

110. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

111. 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, E168, E169 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 60.485a(d)]
112. 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 øC (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879 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 øC (1.2 in. H₂O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

113. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

114. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

115. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

116. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

117. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

118. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]
119. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 V Va; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 40 CFR 60.482-4a, and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

120. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

121. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

122. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

123. 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 60.480a(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 60.486a(i)]

124. 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 60.486a(j)]

125. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

126. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]
127. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 40 CFR 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

128. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

129. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]

130. 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 VVa 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 60.487a(e)]

131. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

132. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

133. 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 unless specifically exempted under Section 4.0 of Rule 8021 or Rule 8011. [District Rules 8011 and 8021]

134. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

135. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

136. 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 or Rule 8011. [District Rules 8011 and 8051]

137. 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 or Rule 8011. [District Rules 8011 and 8061]
138. (3438) Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

139. (3439) Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

140. (3440) On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

141. (3441) Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

142. (3442) Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-10-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
ONE 30,000 GALLON PROCESS CONDENSATE TANK, COLLECTING WATER FROM THE EVAPORATORS (UNDER PERMIT N-8887-11) AND FROM THE DISTILLATION PROCESS (N-8887-9), SERVED BY AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-8887-4, '-7, '-9, '-10, AND '-11)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

4. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

5. 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]

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Amo Marjolle, Director of Permit Services
N-8887-10-0: Dec 11 2014 4:11PM - KAHLOUJ : Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
6. 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

8. {15} 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]

9. Controlled VOC emissions rate from the process condensate tank served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

10. The combined controlled VOC emissions rate from the yeast preparation and pre-fermenter tanks, yeast cream separation operation, distillation operation, process condensate tank and vinasse processing, storage and loadout operation all served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

11. The ethanol production rate shall not exceed any of the following limits: 135,000 gallons/day and 40 million gallons/year (12-month rolling basis). [District Rule 2201]

12. Fugitive VOC emissions from component leaks shall not exceed 0.4 pounds during any one day. [District Rule 2201]

13. 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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [District Rule 2201]

14. 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. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

15. 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]

16. 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]

17. Source testing to demonstrate compliance with the VOC emission limit and the 95% control efficiency of the vent gas scrubber shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. [District Rules 2201 and 4623]

18. 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]

19. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA’s Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201]

20. During source testing, the owner or operator shall maintain records of the amount of ethanol produced, in gal-ethanol/hour. [District Rule 2201]

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

22. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]

23. During the initial source test, the owner or operator shall establish surrogate parameters (e.g., minimum water flow rate through the scrubber, minimum water temperature, or others similar parameters etc.) per manufacturer's recommendation that will ensure on-going compliance with VOC emissions limits and scrubber control efficiency. These parameters shall be included in the Permit to Operate. [District Rule 2201]
24. The owner or operator shall monitor and record the parameters established for the vent gas scrubber at least once every day. [District Rule 2201]

25. The owner or operator shall operate the vent gas scrubber in accordance with parameters established during the initial source test. Any excursion from the established parameter shall be corrected, as soon as possible, but no longer than 1 hour of operation after detection. If the excursion continues after 1 hour of operation after detection, the owner or operator shall notify the District within the following 1 hour. The owner or operator must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]

26. The owner or operator shall maintain records of the date, name of the parameter established for the vent gas scrubber, reading of the parameter, and a description of any corrective action taken to operate the vent gas scrubber in accordance with the established parameters. [District Rule 2201]

27. The owner or operator shall maintain daily and monthly records, in gallons, of the quantity of ethanol produced at this facility. The monthly records shall be used to determine quantity of ethanol produced in a 12-month rolling period. [District Rule 2201]

28. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

29. 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]

30. 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]

31. 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]

32. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

33. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [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. 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 re-inspected 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 and 5.2.2]

36. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]
37. 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]

38. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

39. 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]

40. 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]

41. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

42. 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]

43. All component leaks shall be immediately minimized to the extent possible, but not later than one 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 this Rule shall either be: 1) repaired or replaced, or 2) vented to a closed vent system, or 3) removed from operation. [District Rule 4455, 5.3.4 and 5.3.5]

44. 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]

45. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

46. 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]
47. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

48. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

49. Prior to the implementation of Authority to Construct permits N-8887-4 through '-14, '-17 and '-18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

50. 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 and 6.1.4]

51. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

52. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

53. 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 Rule 4455. [District Rule 4455, 6.3]

54. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

55. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

56. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-7a, 60.482-7a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

57. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

58. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]
59. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

60. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

61. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

62. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

63. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

64. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

65. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

66. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

67. 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 60.482-3a(d), (e), and (f)]

68. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

69. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

70. 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 60.482-3a through (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 60.482-3a through (e), and (h). [40 CFR 60.482-3(i)]
71. 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 60.485a(c). [40 CFR 60.482-4(a) and District Rule 2201]

72. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4(a) and District Rule 2201]

73. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)]

74. 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 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 60.482-9a. [40 CFR 60.482-4(d)]

75. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

76. 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 60.482-1a(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)]

77. 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 60.482-6a(b)]

78. 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 60.482-6a(d)]

79. 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 60.482-6a(c) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

80. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

81. 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 60.482-7a(c)]

82. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]
83. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

84. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

85. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

86. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

87. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

88. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

89. 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 ppmv, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 øC. [40 CFR 60.482-10a(c)]

90. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

91. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

92. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

93. 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 demonstrates 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 60.482-10a(h)]

CONDITIONS CONTINUE ON NEXT PAGE
94. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)]

95. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

96. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]

97. 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 60.486a(c); 4) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(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 60.482-10a(l)]

98. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

99. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

100. Except as allowed in 40 CFR 60.482-1a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

101. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

102. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

103. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]
104. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]

105. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

106. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

107. 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 VVa. [40 CFR 60.484a(a)]

108. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)]

109. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

110. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

111. 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, E168, E169 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 60.485a(d)]
112. 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. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 °C (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

113. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

114. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

115. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

116. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

117. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

118. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]
119. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

120. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

121. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

122. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

123. 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 60.480a(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 60.486a(i)]

124. 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 60.486a(j)]

125. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

126. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]
127. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 40 CFR 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

128. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

129. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]

130. 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 VVa 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 60.487a(e)]

131. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

132. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

133. 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 or Rule 8011. [District Rules 8011 and 8021]

134. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

135. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

136. 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 or Rule 8011. [District Rules 8011 and 8051]

137. 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 or Rule 8011. [District Rules 8011 and 8061]
138. {3438} Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

139. {3439} Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

140. {3440} On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

141. {3441} Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

142. {3442} Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-11-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
VINASSE PROCESSING, STORAGE AND LOADOUT OPERATION CONSISTING OF FOUR EVAPORATORS AND ASSOCIATED TANKS, ALL DUCTED TO AN AMERICAN ENVIRONMENTAL (OR EQUIVALENT VENDOR) VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-8887-4, '-7, '-9, '-10, AND '-11)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

4. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

5. 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]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This IS NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

Amaud Marjolle, Director of Permit Services
6. 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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

8. 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]

9. Controlled VOC emissions from the vinasse processing, storage and loadout operation served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

10. The combined controlled VOC emissions rate from the yeast preparation and pre-fermenter tanks, yeast cream separation operation, distillation operation, process condensate tank and vinasse processing, storage and loadout operation all served by the vent gas scrubber shall not exceed 0.01161 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201]

11. The ethanol production rate shall not exceed any of the following limits: 135,000 gallons/day and 40 million gallons/year (12-month rolling basis). [District Rule 2201]

12. Fugitive VOC emissions from component leaks shall not exceed 0.2 pounds during any one day. [District Rule 2201]

13. 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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [District Rule 2201]

14. 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. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623]

15. 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]

16. 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]

17. Source testing to demonstrate compliance with the VOC emission limit and the 95% control efficiency of the vent gas scrubber shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. [District Rules 2201 and 4623]

18. 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]

19. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201]

20. During source testing, the owner or operator shall maintain records of the amount of ethanol produced, in gal-ethanol/hour. [District Rule 2201]

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

22. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]

23. During the initial source test, the owner or operator shall establish surrogate parameters (e.g., minimum water flow rate through the scrubber, minimum water temperature, or others similar parameters etc.) per manufacturer's recommendation that will ensure on-going compliance with VOC emissions limits and scrubber control efficiency. These parameters shall be included in the Permit to Operate. [District Rule 2201]
24. The owner or operator shall monitor and record the parameters established for the vent gas scrubber at least once every day. [District Rule 2201]

25. The owner or operator shall operate the vent gas scrubber in accordance parameters established during the initial source test. Any excursion from the established parameter shall be corrected, as soon as possible, but no longer than 1 hour of operation after detection. If the excursion continues after 1 hour of operation after detection, the owner or operator shall notify the District within the following 1 hour. The owner or operator must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]

26. The owner or operator shall maintain records of the date, name of the parameter established for the vent gas scrubber, reading of the parameter, and a description of any corrective action taken to operate the vent gas scrubber in accordance with the established parameters. [District Rule 2201]

27. The owner or operator shall maintain daily and monthly records, in gallons, of the quantity of ethanol produced at this facility. The monthly records shall be used to determine quantity of ethanol produced in a 12-month rolling period. [District Rule 2201]

28. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

29. 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]

30. 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]

31. 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]

32. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

33. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [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. 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 re-inspected 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 and 5.2.2]

36. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]
37. 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]

38. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

39. 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]

40. 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]

41. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

42. 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]

43. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

44. 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]

45. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

46. 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]
47. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

48. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

49. Prior to the implementation of Authority to Construct permits N-8887-4 through '-14, '-17 and '-18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

50. 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 and 6.1.4]

51. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

52. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

53. 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 Rule 4455. [District Rule 4455, 6.4]

54. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

55. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

56. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

57. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

58. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]
59. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

60. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

61. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

62. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

63. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

64. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

65. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

66. 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 60.482-3a(c), (h) and (j). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

67. 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 60.482-3a(d), (e), and (f)]

68. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

69. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

70. 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 60.482-3a through (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 60.482-3a through (e), and (h). [40 CFR 60.482-3(j)]

CONDITIONS CONTINUE ON NEXT PAGE
71. 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 60.485a(c). [40 CFR 60.482-4a(a) and District Rule 2201]

72. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

73. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]

74. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

75. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

76. 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 60.482-1a(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 60.482-6a(a) and (c)]

77. 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 60.482-6a(b)]

78. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

79. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

80. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

81. 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 60.482-7a(c)]

82. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]
83. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

84. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

85. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

86. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

87. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

88. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

89. 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 ppmv, 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 øC. [40 CFR 60.482-10a(c)]

90. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

91. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

92. Except as provided in 40 CFR 60.482-10a(e) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

93. 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 60.482-10a(h)]
94. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)]

95. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

96. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(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 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]

97. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(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 60.482-10a(l)]

98. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

99. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

100. Except as allowed in 40 CFR 60.482-1a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

101. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

102. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

103. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]
104. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]

105. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

106. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

107. 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 VVa. [40 CFR 60.484a(a)]

108. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(b) and District Rule 2201]

109. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

110. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

111. 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, E168, E169 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 determine 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 60.485a(d)]
112. 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. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 °C (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

113. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

114. An owner or operator of more than one affected facility subject to the provisions Subpart VV(a) may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

115. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

116. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

117. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

118. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]
119. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 40 CFR 60.482-4a, and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

120. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

121. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

122. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

123. 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 60.480a(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 60.486a(i)]

124. 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 60.486a(j)]

125. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

126. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]
127. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

128. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(i), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

129. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]

130. 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 VVa 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 60.487a(e)]

131. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

132. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

133. 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 unless specifically exempted under Section 4.0 of Rule 8021 or Rule 8011. [District Rules 8011 and 8021]

134. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

135. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

136. 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 or Rule 8011. [District Rules 8011 and 8021]

137. 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 or Rule 8011. [District Rules 8011 and 8061]
138. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

139. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

140. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

141. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

142. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-12-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS:
12300 FINCK RD
TRACY, CA 95304
9251 W ARBOR AVE
TRACY, CA 95304

LOCATION:
9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
127,000 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK WITH A ULTRAFLOTE MODEL DUAL ULTRASEAL SEAL SYSTEM (OR EQUIVALENT SEAL SYSTEM)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

4. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

5. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

Amaud Marjolleir, Director of Permit Services

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
6. 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]

7. 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]

8. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

9. 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]

10. VOC emissions from this tank shall not exceed 1.7 lb/day, equivalent to a maximum throughput rate of 135,000 gallons/day of 200-proof ethanol through this tank. [District Rule 2201]

11. The total VOC emissions from tanks under permits N-8887-12 and '-13 shall not exceed 502 lb/year, equivalent to a maximum throughput rate of 40 million gallons/year of 200-proof ethanol through both tanks in a rolling 12-month period. [District Rule 2201]

12. The owner or operator shall maintain daily records of the quantity of ethanol processed (in gallons) through this storage tank. [District Rule 2201]

13. The owner or operator shall maintain cumulative monthly records of the quantity of ethanol processed (in gallons) through the tanks under permit N-8887-12 and '-13. These records shall be used to determine total throughput in a 12-month rolling period. [District Rule 2201]

14. Fugitive VOC emissions from component leaks shall not exceed 1.0 pounds during any one day. [District Rule 2201]

15. 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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [District Rule 2201]

16. 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)]

17. 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. [District Rule 4623 and 40 CFR 60.112b(a)(1)(ii)]

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

19. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]

20. 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]

21. 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]

22. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]

23. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]

24. 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]
25. 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]

26. 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]

27. 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]

28. 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]

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

30. 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]

31. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 100 ppmv for valves, connectors and flanges 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 liquid leak is defined as a dripping rate of more than three (3) drops per minute. A reading in excess of 100 ppmv for valves, connectors and flanges or 500 ppmv for pumps and compressor seals, above background or a liquid leak of greater than three (3) drops per minute is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623]

32. 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)]

33. 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)]

34. 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)]

35. 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)]

36. 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)]

37. 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)]

38. Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]
39. The owner or operator 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)]

40. The owner or operator 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 rule 4623. [District Rule 4623 and 40 CFR 60.113b(a)(2)]

41. If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(2)]

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

43. The owner or operator shall notify the District in writing at least 30 days prior to conducting the visual inspection of the storage vessel, so the District has the opportunity to have an observer present. [40 CFR 60.113b(a)(5)]

44. The owner or operator shall furnish a report that describes the control equipment and certifies that the control equipment meet the tank specification listed in this permit as part of initial startup notification. [40 CFR part 60.115b(a)(1)]

45. The owner or operator 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 the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)]

46. The owner or operator 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. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(b)]

48. The owner or operator shall maintain records of the volatile organic liquid stored, the period of storage, and TVP of that volatile organic liquid during the respective storage period. TVP shall be determined using the data on the Reid vapor pressure (highest tank sample results) and actual storage temperature. [District Rule 2201 and 40 CFR 60.116b(c)]

CONDITIONS CONTINUE ON NEXT PAGE
49. Maximum true vapor pressure may be obtained from standard reference texts, or determined by ASTM D2879, or other District approved alternative methods. [40 CFR 60.116b(e)(3)]

50. The owner or operator shall keep all records on-site for a period of at least five years. These records shall be made available for District inspection upon request. [District Rules 2201 and 4623, and 40 CFR 60.116b(a)]

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. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

55. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [District Rules 2201 and 4455, 5.1.4]

56. 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]

57. 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 re-inspected 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 and 5.2.2]

58. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]

59. 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]

60. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]
61. 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]

62. 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]

63. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

64. 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]

65. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

66. 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]

67. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

68. 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]

69. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

70. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]
71. Prior to the implementation of Authority to Construct permits N-8887-4 through ‘-14, ‘-17 and ‘-18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

72. 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 and 6.1.4]

73. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

74. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

75. 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 Rule 4455. [District Rule 4455, 6.4]

76. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

77. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

78. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

79. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

80. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]

81. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

82. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

83. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]
Conditions for N-8887-12-0 (continued)

84. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

85. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

86. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

87. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

88. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

89. 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 60.482-3a(d), (e), and (f)]

90. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

91. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

92. 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 60.482-3a(a) through (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 60.482-3a(a) through (e), and (h). [40 CFR 60.482-3(j)]

93. 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 60.485a(c). [40 CFR 60.482-4(a) and District Rule 2201]

94. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

95. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]

CONDITIONS CONTINUE ON NEXT PAGE
96. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

97. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

98. 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 60.482-1a(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 60.482-6a(a) and (c)]

99. 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 60.482-6a(b)]

100. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

101. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

102. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

103. 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 60.482-7a(c)]

104. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]

105. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

106. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]
107. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

108. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

109. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

110. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

111. 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 ppmv, 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 øC. [40 CFR 60.482-10a(c)]

112. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

113. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

114. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

115. 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 60.482-10a(h)]

116. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1) and (f)(2). [40 CFR 60.482-10a(i)]

117. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

118. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]

CONDITIONS CONTINUE ON NEXT PAGE
119. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(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 60.482-10a(l)]

120. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

121. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

122. Except as allowed in 40 CFR 60.482-1a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

123. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

124. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

125. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]

126. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]
127. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

128. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

129. 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 VVa. [40 CFR 60.484a(a)]

130. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)]

131. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

132. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

133. 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, E168, E169 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 60.485a(d)]

134. 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 øC (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 øC (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

135. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

136. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

137. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

CONDITIONS CONTINUE ON NEXT PAGE
138. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

139. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is un repaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

140. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]

141. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i), and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 40 CFR 60.482-4a, and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]
142. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

143. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

144. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

145. 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 60.480a(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 60.486a(i)]

146. 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 60.486a(j)]

147. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

148. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]

149. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

150. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

151. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]
152. 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 VVa 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 60.487a(e)]

153. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

154. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

155. 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 or Rule 8011. [District Rules 8011 and 8021]

156. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

157. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

158. 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 or Rule 8011. [District Rules 8011 and 8051]

159. 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 or Rule 8011. [District Rules 8011 and 8061]

160. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

161. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

162. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

163. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

164. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-13-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
127,000 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK WITH A ULTRAFLOTE MODEL DUAL ULTRALEASE SEAL SYSTEM (OR EQUIVALENT SEAL SYSTEM)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

4. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

5. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

Arnaud Marjolle, Director of Permit Services

N-8887-13-0: Dec 11 2014 4:15PM - KAALONJ : Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
6. 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]

7. 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]

8. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

9. 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]

10. VOC emissions from this tank shall not exceed 1.7 lb/day, equivalent to a maximum throughput rate of 135,000 gallons/day of 200-proof ethanol through this tank. [District Rule 2201]

11. The total VOC emissions from tanks under permits N-8887-12 and '13 shall not exceed 502 lb/year, equivalent to a total maximum throughput rate of 40 million gallons/year of 200-proof ethanol through both tanks in a rolling 12-month period. [District Rule 2201]

12. The owner or operator shall maintain daily records of the quantity of ethanol processed (in gallons) through this storage tank. [District Rule 2201]

13. The owner or operator shall maintain cumulative monthly records of the quantity of ethanol processed (in gallons) through the tanks under permit N-8887-12 and '13. These records shall be used to determine total throughput in a 12-month rolling period. [District Rule 2201]

14. Fugitive VOC emissions from component leaks shall not exceed 1.0 pounds during any one day. [District Rule 2201]

15. 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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [District Rule 2201]

16. 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)]

17. 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. [District Rule 4623 and 40 CFR 60.112b(a)(1)(ii)]

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

19. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]

20. 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]

21. 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]

22. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]

23. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]

24. 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]
25. 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]

26. 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]

27. 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]

28. 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]

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

30. 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]

31. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 100 ppmv for valves, connectors and flanges 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 liquid leak is defined as a dripping rate of more than three (3) drops per minute. A reading in excess of 100 ppmv for valves, connectors and flanges or 500 ppmv for pumps and compressor seals, above background or a liquid leak of greater than three (3) drops per minute is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623]

32. 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)]

33. 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)]

34. 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)]

35. 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)]

36. 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)]

37. 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)]

38. Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]
39. The owner or operator 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)]

40. The owner or operator 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 rule 4623. [District Rule 4623 and 40 CFR 60.113b(a)(2)]

41. If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(2)]

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

43. The owner or operator shall notify the District in writing at least 30 days prior to conducting the visual inspection of the storage vessel, so the District has the opportunity to have an observer present. [40 CFR 60.113b(a)(5)]

44. The owner or operator shall furnish a report that describes the control equipment and certifies that the control equipment meet the tank specification listed in this permit as part of initial startup notification. [40 CFR part 60.115b(a)(1)]

45. The owner or operator 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 the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)]

46. The owner or operator 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. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(b)]

48. The owner or operator shall maintain records of the volatile organic liquid stored, the period of storage, and TVP of that volatile organic liquid during the respective storage period. TVP shall be determined using the data on the Reid vapor pressure (highest tank sample results) and actual storage temperature. [District Rule 2201 and 40 CFR 60.116b(c)]
49. Maximum true vapor pressure may be obtained from standard reference texts, or determined by ASTM D2879, or other District approved alternative methods. [40 CFR 60.116b(e)(3)]

50. The owner or operator shall keep all records on-site for a period of at least five years. These records shall be made available for District inspection upon request. [District Rules 2201 and 4623, and 40 CFR 60.116b(a)]

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. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

55. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [District Rules 2201 and 4455, 5.1.4]

56. 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]

57. 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 re-inspected 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 and 5.2.2]

58. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]

59. 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]

60. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]
61. 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 ensure 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]

62. 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]

63. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

64. 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]

65. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

66. 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]

67. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

68. 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]

69. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

70. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]
71. Prior to the implementation of Authority to Construct permits N-8887-4 through '-14, '-17 and '-18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

72. 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 and 6.1.4]

73. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

74. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

75. 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 Rule 4455. [District Rule 4455, 6.4]

76. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

77. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

78. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

79. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

80. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]

81. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(e) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

82. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

83. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]
84. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

85. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

86. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

87. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

88. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

89. 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 60.482-3a(d), (e), and (f)]

90. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

91. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

92. 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 60.482-3a(a) through (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 60.482-3a(a)(1)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

93. 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 60.485a(c). [40 CFR 60.482-4a(a) and District Rule 2201]

94. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

95. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]
96. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

97. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

98. 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 60.482-1a(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 60.482-6a(a) and (c)]

99. 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 60.482-6a(b)]

100. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

101. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

102. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

103. 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, beginning with the next quarter, until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)]

104. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]

105. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

106. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]
107. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

108. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

109. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

110. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

111. 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 ppmv, 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 °C. [40 CFR 60.482-10a(c)]

112. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

113. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

114. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

115. 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 60.482-10a(h)]

116. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)]

117. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

118. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(5). [40 CFR 60.482-10a(k)]
119. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(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 60.482-10a(l)]

120. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

121. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

122. Except as allowed in 40 CFR 60.482-1a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

123. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

124. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

125. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]

126. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]
127. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

128. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

129. 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 VVa. [40 CFR 60.484a(a)]

130. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)]

131. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

132. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

133. 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, E168, E169 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 60.485a(d)]

134. 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. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 °C (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

135. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

136. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

137. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]
138. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60 CFR 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

139. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

140. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]

141. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i), and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f) shall be recorded in a log that is kept in a readily accessible location: 1) Detailed schematics, design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications; (ii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]
142. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-1la(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

143. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

144. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

145. 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 60.480a(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 60.486a(i)]

146. 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 60.486a(j)]

147. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

148. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]

149. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

150. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(i)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

151. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]
152. 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 VVa 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(a)(e)]

153. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

154. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

155. {3433} 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 or Rule 8011. [District Rules 8011 and 8021]

156. {3434} An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

157. {3435} 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

158. {3436} 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 or Rule 8011. [District Rules 8011 and 8051]

159. {3437} 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 or Rule 8011. [District Rules 8011 and 8061]

160. {3438} Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

161. {3439} Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

162. {3440} On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

163. {3441} Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

164. {3442} Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-14-0
LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
381,000 GALLON INTERNAL FLOATING ROOF 200-PROOF ETHANOL STORAGE TANK WITH A ULTRAFLOTE MODEL DUAL ULTRALEASE SEAL SYSTEM (OR EQUIVALENT SEAL SYSTEM)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

4. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0 and '-16-0 through '-18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

5. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

Arnaud Marjolle, Director of Permit Services
6. 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]

7. 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]

8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

9. {15} 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]

10. VOC emissions shall not exceed 1.4 lb/day and 415 lb/year, equivalent to a maximum throughput rate of 135,000 gallons/day of 200 proof ethanol and 40 million gallons/year of 200-proof ethanol in a rolling 12-month period. [District Rule 2201]

11. The owner or operator shall maintain daily records of the quantity of ethanol processed (in gallons) through this storage tank. [District Rule 2201]

12. The owner or operator shall maintain cumulative monthly records of the quantity of ethanol processed (in gallons) through the tank. These records shall be used to determine total throughput in a 12-month rolling period. [District Rule 2201]

13. Fugitive VOC emissions from component leaks shall not exceed 1.0 pounds during any one day. [District Rule 2201]

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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [District Rule 2201]

15. 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)]

16. 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. [District Rule 4623 and 40 CFR 60.112b(a)(1)(ii)]

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

18. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]

19. 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]

20. 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]

21. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]

22. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]

23. 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]

24. The Ultraflote Model Dual Ultrasel 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]
25. The geometry of the Ultraflote model Dual Ultrasel 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]

26. 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]

27. 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]

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

29. 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]

30. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 100 ppmv for valves, connectors and flanges 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 liquid leak is defined as a dripping rate of more than three (3) drops per minute. A reading in excess of 100 ppmv for valves, connectors and flanges or 500 ppmv for pumps and compressor seals, above background or a liquid leak of greater than three (3) drops per minute is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4623]

31. 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)]

32. 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)]

33. 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)]

34. 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)]

35. 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)]

36. 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)]

37. Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]

38. The owner or operator 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 60.112b(a)(1)]
39. The owner or operator 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 rule 4623. [District Rule 4623 and 40 CFR 60.113b(a)(2)]

40. If any failure (i.e., visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(2)]

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

42. The owner or operator shall notify the District in writing at least 30 days prior to conducting the visual inspection of the storage vessel, so the District has the opportunity to have an observer present. [40 CFR 60.113b(a)(5)]

43. The owner or operator shall furnish a report that describes the control equipment and certifies that the control equipment meet the tank specification listed in this permit as part of initial startup notification. [40 CFR part 60.115b(a)(1)]

44. The owner or operator 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 the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 60.115b(a)(3)]

45. The owner or operator 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. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(b)]

47. The owner or operator shall maintain records of the volatile organic liquid stored, the period of storage, and TVP of that volatile organic liquid during the respective storage period. TVP shall be determined using the data on the Reid vapor pressure (highest tank sample results) and actual storage temperature. [District Rule 2201 and 40 CFR 60.116b(c)]

48. Maximum true vapor pressure may be obtained from standard reference texts, or determined by ASTM D2879, or other District approved alternative methods. [40 CFR 60.116b(e)(3)]

49. The owner or operator shall keep all records on-site for a period of at least five years. These records shall be made available for District inspection upon request. [District Rules 2201 and 4623, and 40 CFR 60.116b(a)]

CONDITIONS CONTINUE ON NEXT PAGE
50. 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]

51. 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]

52. 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]

53. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

54. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [District Rules 2201 and 4455, 5.1.4]

55. 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]

56. 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 re-inspected 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 and 5.2.2]

57. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]

58. 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]

59. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

60. 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]
61. 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]

62. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

63. 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]

64. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

65. 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]

66. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

67. 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]

68. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

69. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

70. Prior to the implementation of Authority to Construct permits N-8887-4 through '-14, '-17 and '-18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

71. 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 and 6.1.4]
72. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

73. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

74. 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 Rule 4455. [District Rule 4455, 6.4]

75. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

76. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

77. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

78. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

79. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]

80. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

81. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

82. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

83. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

84. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]
85. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

86. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

87. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

88. 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 60.482-3a(d), (e), and (f)]

89. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

90. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

91. Any existing reciprocating compressor in a process unit which becomes an affected facility under the provisions of 40 CFR 60.14 or 60.15 is exempt from 40 CFR 60.482-3a through (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 60.482-3a through (e), and (h). [40 CFR 60.482-3(j)]

92. 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 ppmv above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a) and District Rule 2201]

93. 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 ppmv above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. 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 ppmv above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

94. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]

95. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]
96. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

97. 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 60.482-1a(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 60.482-6a(a) and (c)]

98. 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 60.482-6a(b)]

99. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

100. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

101. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

102. 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 60.482-7a(c)]

103. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]

104. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

105. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

106. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]
107. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

108. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

109. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

110. 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 ppmv, 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 øC. [40 CFR 60.482-10a(c)]

111. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

112. Owners or operators of control devices used to comply with the provisions of Subpart VVb shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

113. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

114. 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 60.482-10a(h)]

115. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1) and (f)(2). [40 CFR 60.482-10a(i)]

116. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(i)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

117. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(i)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]
118. 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 60.485a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(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 60.482-10a(l)]

119. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

120. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

121. Except as allowed in 40 CFR 60.482-1a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

122. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-1a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

123. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

124. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]

125. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]
126. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

127. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

128. 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 VVa. [40 CFR 60.484a(a)]

129. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)]

130. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

131. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

132. 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, E168, E169 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 60.485a(d)]

133. 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 øC (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 øC (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

134. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

135. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(2)]

136. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]
137. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.482-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

138. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.482-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

139. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]

140. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i), and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-7a(f), and 60.482-7a(f) shall be measured at the equipment during each compliance test. (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]
141. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

142. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

143. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

144. 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 60.480a(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 60.486a(i)]

145. 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 60.486a(j)]

146. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

147. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]

148. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

149. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(i)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

150. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]
151. 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 VVa 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 60.487a(e)]

152. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

153. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070]

154. 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 or Rule 8011. [District Rules 8011 and 8021]

155. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

156. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

157. 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 or Rule 8011. [District Rules 8011 and 8051]

158. 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 or Rule 8011. [District Rules 8011 and 8061]

159. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rules 8011 and 8071]

160. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

161. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

162. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

163. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO:  N-8887-16-0

LEGAL OWNER OR OPERATOR:  TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS:  12300 FINCK RD
                    TRACY, CA 95304

LOCATION:  9251 W ARBOR AVE
            TRACY, CA 95304

EQUIPMENT DESCRIPTION:
BEET PULP PROCESSING, STORAGE AND LOADOUT OPERATION: WET BEET PULP ENCLOSED HOPPER INSIDE
THE PERMANENT BUILDING, TRUCK LOADOUT OPERATION OUTSIDE THE BUILDING AND ASSOCIATED
ENCLOSED CONVEYORS. THE HOPPER AND TRUCK LOADOUT SYSTEM ARE SERVED BY A 5 MMBTU/HR
EISENMANN VALVELESS (OR EQUIVALENT VENDOR AND MODEL) REGENERATIVE THERMAL OXIDIZER (RTO)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits
   within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide NOx emissions shall not exceed 20,147 pounds during any 12 consecutive month rolling period.
   [District Rule 2201]

3. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period.
   [District Rule 2201]

4. Prior to operating under ATCs N-8887-1-0, '2-0 and '-16-0, the owner or operator shall mitigate the following
   quantities of NOx: 1st quarter: 55 lb, 2nd quarter: 55 lb, 3rd quarter: 55 lb, and 4th quarter: 56 lb. The quarterly
   amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule
   2201]

5. NOx ERC S-4362-2 (or a certificate split from any of these certificates) shall be used to supply the required NOx
   offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this
   Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original
   public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit.
   [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO
OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE.
Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the
approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all
Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this
Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with
all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director  APCO

Arnaud Marjollet, Director of Permit Services
N-8887-16-0: Dec 11 2014 4:19PM - X/AL/NJU - Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
6. Prior to operating under ATCs N-8887-1-0, '-2-0, '-4-0 through '-14-0, '-16-0 through '-18, '-20-0 and '-21-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

7. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

8. 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]

9. 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]

10. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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

12. 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]

13. VOC emissions at the RTO discharge stack serving the enclosed hopper and truck loadout operation shall not exceed 0.0022 pounds per ton of wet pulp loaded into the trucks. [District Rule 2201]

14. The wet beet pulp loadout rate shall not exceed 326 tons/day and 104,320 tons/year (12 month rolling period). [District Rule 2201]

15. The RTO shall only be fired on PUC-quality natural gas. [District Rule 2201]

16. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the RTO unit shall be installed, utilized and maintained. [District Rule 2201]

17. Emissions from natural gas combustion in the RTO shall not exceed any of the following limits: 0.0059 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 0.036 lb-CO/MMBtu, and 0.004 lb-VOC/MMBtu. [District Rules 2201]

18. 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]

19. Source testing to demonstrate compliance with the VOC emission limit shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. [District Rule 2201]

20. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201]

21. During source testing, the owner or operator shall maintain records of the amount of wet pulp loaded into the trucks, in wet-tons/hour. [District Rule 2201]

22. During the initial source test, the owner or operator shall establish minimum temperature of the RTO chamber temperature while demonstrating compliance with VOC emissions limit. This temperature parameter shall be included in the Permit to Operate. [District Rule 2201]

23. The RTO shall be equipped with a continuous temperature monitoring and recording device in operation at all times. [District Rule 2201]
24. Source testing to demonstrate compliance with the NOx and CO emissions at the RTO discharge stack shall be conducted within 60 days of initial startup. [District Rule 2201]

25. NOx emissions for source test purposes shall be determined using EPA Method 19 on a heat input basis. [District Rule 2201]

26. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 2201]

27. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 2201]

28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

29. The owner or operator shall maintain RTO chamber temperature at or above the established temperature during initial startup. Any excursion from the established temperature shall be corrected, as soon as possible, but no longer than 1 hour of operation after detection. If the excursion continues after 1 hour of operation after detection, the owner or operator shall notify the District within the following 1 hour. The owner or operator must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]

30. The owner or operator shall maintain records of the date, RTO chamber temperature record, and a description of any corrective action taken to maintain the RTO chamber temperature at or above the established temperature. [District Rule 2201]

31. The owner or operator shall keep records of the facility-wide NOx and VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

32. The owner or operator shall keep daily records of the amount of wet pulp loaded into the trucks (tons). [District Rule 2201]

33. The owner or operator shall maintain monthly records of the amount of wet pulp loaded into the trucks. These records shall be used to determine total loadout in a 12-month rolling period. [District Rule 2201]

34. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

35. 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 or Rule 8011. [District Rules 8011 and 8021]

36. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

37. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

38. 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 or Rule 8011. [District Rules 8011 and 8051]

39. 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 or Rule 8011. [District Rules 8011 and 8061]

40. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

41. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]
42. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

43. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

44. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-17-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS:
12300 FINCK RD
TRACY, CA 95304

LOCATION:
9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
20,000 GALLON TOTALLY ENCLOSED GASOLINE STORAGE TANK (PRESSURE VESSEL) WITH A BOTTOM TRUCK UNLOADING RACK AND A BALANCE TYPE VAPOR RECOVERY SYSTEM

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

4. Prior to operating under ATCs N-8887-1-0, -2-0, -4-0 through -14-0, -16-0 through -18-0, -20-0 and -21-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

5. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
6. 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]

7. 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]

8. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

9. 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]

10. The amount of gasoline removed from this storage tank for making denatured ethanol shall not exceed 50,000 gallons/day and 2.5 million gallons/year. [District Rule 2201]

11. There shall be no VOC emissions from the storing of gasoline in this tank. [District Rules 2201 and 4623 and 40 CFR 60.110(d)(2)]

12. VOC emissions shall not exceed 0.0148 pounds per hose disconnect, equivalent to 10 mL gasoline per disconnect. [District Rule 2201]

13. The owner or operator shall determine an average organic liquid drainage for three consecutive disconnects to demonstrate compliance with the 10 mL per disconnect limit. The drainage shall be determined within 60 days of initial startup of the transfer operation and at least once a quarter thereafter. [District Rule 2201]

14. The number of gasoline hose disconnects performed during gasoline truck unloading operation shall not exceed 10 disconnects per day and 500 disconnects per year. [District Rule 2201]

15. The owner or operator shall maintain daily records of the number of disconnects and the amount of gasoline removed (gallons) from the tank. [District Rule 2201]

16. The owner or operator shall maintain monthly records of number of disconnects made and the amount of gasoline removed (gallons) from the tank. These records shall be used to determine total number of disconnects and the amount of gasoline removed (gallons) in a 12-month rolling period. [District Rule 2201]

17. Fugitive VOC emissions from component leaks shall not exceed 1.1 pounds during any one day. [District Rule 2201]

18. 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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [District Rule 2201]

19. 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]

20. 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]

21. 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]

22. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components inspected of each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]
23. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [District Rules 2201 and 4455, 5.1.4]

24. 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]

25. 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 re-inspected 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 and 5.2.2]

26. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]

27. 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]

28. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

29. 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]

30. 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]

31. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

32. 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]

33. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]
34. 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]

35. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

36. 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]

37. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

38. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

39. Prior to the implementation of Authority to Construct permits N-8887-4 through '-14, '-17 and '-18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

40. 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 and 6.1.4]

41. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

42. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

43. 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 Rule 4455. [District Rule 4455, 6.4]
44. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

45. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

46. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

47. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

48. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]

49. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

50. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

51. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

52. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

53. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

54. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

55. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

56. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]
57. 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 60.482-3a(d), (e), and (f)]

58. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

59. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

60. 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 60.482-3a(a) through (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 60.482-3a(a) through (e), and (h). [40 CFR 60.482-3(j)]

61. 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 60.485a(c). [40 CFR 60.482-4a(a) and District Rule 2201]

62. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

63. 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 60.482-10a is exempt from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]

64. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

65. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

66. 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 60.482-1a(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 60.482-6a(a) and (c)]

67. 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 60.482-6a(b)]

68. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]
69. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

70. 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 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

71. 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 60.482-7a(c)]

72. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]

73. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

74. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

75. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

76. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

77. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

78. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]
79. 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 ppmv, 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 eC. [40 CFR 60.482-10a(c)]

80. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

81. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

82. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

83. 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 60.482-10a(h)1]

84. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)]

85. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

86. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(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 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]

87. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(f)(1)(iii) 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 60.482-10a(l)]

88. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

89. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

90. Except as allowed in 40 CFR 60.482-1a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]
91. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

92. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

93. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]

94. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]

95. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

96. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

97. 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 VVa. [40 CFR 60.484a(a)]

98. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)]

99. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-1a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]
100. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

101. 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, E168, E169 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 60.485a(d)]

102. 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 øC (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 øC (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

103. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

104. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

105. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

106. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

107. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be unrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]
110. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i), and 60.482-7a(f); (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 40 CFR 60.482-4a, and 40 CFR 60.482-7a(f); (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(a)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

111. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

112. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

113. 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 60.480a(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 60.486a(i)]

114. 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 60.486a(j)]
115. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

116. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]

117. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7a(f); 3) Number of pumps subject to the requirements of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

118. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

119. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]

120. 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 VVa 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 60.487a(e)]

121. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

122. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

123. {3433} 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 or Rule 8011. [District Rules 8011 and 8021]

124. {3434} An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

125. {3435} 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]
126. {3436} 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 or Rule 8011. [District Rules 8011 and 8051]

127. {3437} 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 or Rule 8011. [District Rules 8011 and 8061]

128. {3438} Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

129. {3439} Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

130. {3440} On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

131. {3441} Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

132. {3442} Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-18-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
DENATURED ETHANOL BOTTOM TRUCK LOADING OPERATION CONSISTING OF TWO LOADING RACKS WITH DRY BREAK COUPLERS SERVED BY A JOHN ZINK MODEL S3-AAD-1-70-90-6 HYDROCARBON VAPOR RECOVERY UNIT (OR EQUIVALENT MAKE AND MODEL VRU)

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. Prior to operating under ATCs N-8887-1-0, '2-0, '4-0 through '14-0 and '16-0 through '18-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 2,200 lb, 2nd quarter: 2,200 lb, 3rd quarter: 2,200 lb, and 4th quarter: 2,200 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201]

4. VOC ERC S-4384-1 (or a certificate split from any of these certificates) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201]

5. 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]

CONSIDERATIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director/ APCO
6. 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

8. {15} 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]

9. All delivery tanks shall be properly connected to the vapor collection system before transferring the organic liquid in the tank. [District Rules 2201 and 4624]

10. Each transfer rack and vapor collection system shall be designed, installed, maintained and operated such that there are no leaks and no excess organic liquid drainage at disconnections. [District Rule 4624]

11. The denatured ethanol shall be loaded via bottom loading technique with the use dry break couplers. [District Rule 2201]

12. The vapor recovery unit (VRU) shall achieve a minimum control efficiency of 99% for VOC emissions. [District Rule 2201]

13. The VRU shall consist of two adsorption columns filled with activated carbon for VOC emission control and a dry vacuum pump and packed absorption column for activated carbon regeneration. One activated carbon column shall be on-stream receiving vapors in the adsorption mode while the other activated carbon column is off-stream in the regeneration mode. Each activated carbon column shall be regenerated at a frequency recommended by the manufacturer. [District Rule 2201]

14. Denatured ethanol loadout rate shall not exceed any of the following limits: 230,000 gallons/day and 42 million gallons/year (12-month rolling basis). [District Rule 2201]

15. Controlled VOC emissions rate from the VRU serving the loading racks shall not exceed 0.08 lb/1,000 gal of denatured ethanol loaded. [District Rules 2201 and 4624]

16. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded shall not exceed 18 inches water column pressure and 6 inches water column vacuum. [District Rule 4624]

17. Source testing to demonstrate compliance with the VOC emission limit and the 99% control efficiency of the VRU shall be conducted within 60 days of initial startup and at least once every 12 months thereafter, with equipment in operational condition. Source testing shall be conducted while denatured ethanol is being processed through the loading rack. [District Rules 2201 and 4624]

18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 15 days prior to testing. [District Rule 1081]

19. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA’s Midwest Scaling Protocol for the Measurement of “VOC Mass Emissions” at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201]

20. During source testing, the owner or operator shall maintain records of the amount of denatured ethanol loaded, in gallons per hour. [District Rule 2201]

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

22. Ongoing compliance with VOC emission rate from the exhaust vent of the VRU shall be demonstrated at least once per month by sampling the effluent gas stream with a flame ionization detector (FID), photo ionization detector (PID), or other District-approved VOC detection device. [District Rule 2201]

23. The owner or operator shall maintain daily and monthly records of the denatured ethanol loadout in gallons. The monthly records shall be used to determine the amount of denatured ethanol loadout in a 12-month rolling period. [District Rules 2201 and 4624]
24. VOC emissions shall not exceed 0.0173 pounds per hose disconnect, equivalent to 10 mL of denatured ethanol discharge per disconnect. [District Rule 2201]

25. The number of gasoline hose disconnects performed during loadout operation shall not exceed 23 disconnects per day and 4,200 disconnects per year. [District Rule 2201]

26. The owner or operator shall determine an average organic liquid drainage for three consecutive disconnects to demonstrate compliance with the 10 mL per disconnect limit. The drainage shall be determined within 60 days of initial startup of the transfer operation and at least once a quarter thereafter. [District Rule 2201]

27. The owner or operator shall maintain daily and monthly records of the number of disconnects made during denatured ethanol loadout. The monthly records shall be used to determine the number of disconnects made in a 12-month rolling period. [District Rule 2201]

28. Fugitive VOC emissions from component leaks shall not exceed 1.7 pounds during any one day. [District Rule 2201]

29. 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 and control effectiveness for the Leak Detection and Repair (LDAR) program. [District Rule 2201]

30. The owner or operator shall keep records of the facility-wide VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

31. 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]

32. 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]

33. 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]

34. Valves, threaded connections, and flanges shall not leak VOC in excess of 100 ppmv above background when measured in accordance with EPA Method 21 for more than one component leak of each type provided that 200 or less components of each type are inspected or for more than 0.5% of the number of components in each type provided that more than 200 components are inspected for each type during each inspection period. [District Rules 2201 and 4455, 5.1.4]

35. Pressure relief devices (PRD), including pressure relief valves (PRV) or a rupture disc, shall not leak VOC 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 for more than one component leak during each inspection period. [District Rules 2201 and 4455, 5.1.4]

36. 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]

37. 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 re-inspected 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 and 5.2.2]

38. The operator shall inspect all components at least once every calendar quarter. All 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, and 5.2]
39. 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. 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 Rule 4455 exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of Rule 4455 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 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]

41. 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]

42. 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]

43. 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 Rule 4455. [District Rule 4455, 5.3.1 and 5.3.2]

44. 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]

45. All component leaks shall be immediately minimized to the extent possible, but not later than one 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, 5.3.4 and 5.3.5]

46. 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]

47. 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 months after the date of detection either: 1) replace or retrofit the component with the control technology specified in Table 4 of Rule 4455, 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 Rule 4455, 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 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]

48. 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]
49. The operator shall comply with the process PRD release notification and recordkeeping requirements specified in Section 6.3 of Rule 4455. 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]

50. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping 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]

51. Prior to the implementation of Authority to Construct permits N-8887-4 through '14, '17 and '-18 and prior to commencing operation of the ethanol production facility, the operator must submit, and receive APCO approval of, a District Rule 4455 Operator Management Plan (OMP). The OMP shall conform to the requirements of Section 6.1.3 of the Rule. [District Rule 4455, 6.1.1]

52. 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 and 6.1.4]

53. Operator shall maintain an inspection log containing the information set forth in Sections 6.2.1.1 through 6.2.1.10 of Rule 4455. [District Rule 4455, 6.2.1]

54. 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 calendar days of following notification of process PRD release subject to 6.3.1 of Rule 4455. The written report shall include all of the information set forth in Sections 6.3.2.1 through 6.3.2.5 of Rule 4455. [District Rule 4455, 6.3]

55. 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 Rule 4455. [District Rule 4455, 6.4]

56. Each owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]

57. Compliance with 40 CFR 60.482-1a to 60.482-10a 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 60.485a. [40 CFR 60.482-1a(b)]

58. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)]

59. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)]

60. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]
61. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(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 60.482-2a(a) and (b) and District Rule 2201]

62. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]

63. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]

64. Any PLLS that is designated, as described in 40 CFR 60.486a(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 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e) and District Rule 2201]

65. If any PLLS is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]

66. Any pump in PLLS that is designated as an unsafe-to-monitor pump, as described in 40 CFR 60.486a(f)(1), is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(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 60.482-2a(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 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]

67. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

68. 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 60.482-3a(c), (h) and (i). Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3a(b)(1), or (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]

69. 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 60.482-3a(d), (e), and (f)]

70. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]

71. Any compressor that is designated, as described in 40 CFR 60.486a(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 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i) and District Rule 2201]

72. 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 60.482-3a(a) through (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 60.482-3a(a) through (e), and (h). [40 CFR 60.482-3(i)]

CONDITIONS CONTINUE ON NEXT PAGE
73. 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 60.485a(c). [40 CFR 60.482-4a(a) and District Rule 2201]

74. 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 60.482-9a. 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 60.485a(c). [40 CFR 60.482-4a(b) and District Rule 2201]

75. 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 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4(c)]

76. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided 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 60.482-9a. [40 CFR 60.482-4a(d)]

77. 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 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1) through (4). [40 CFR 60.482-5a(a), (b) and (c)]

78. 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 60.482-1a(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 60.482-6a(a) and (c)]

79. 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 60.482-6a(b)]

80. 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 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]

81. 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 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]

82. 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 60.482-5a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b) and District Rule 2201]

83. 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 60.482-7a(c)]

84. 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 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7ad and (e)]
85. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(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 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f) and District Rule 2201]

86. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(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 60.482-7a(g)]

87. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(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 60.482-7a(h)]

88. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(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 60.482-8a(a) and (b), and District Rule 2201]

89. When a leak is detected in pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, 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 60.482-9a. 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 60.482-7a(c)(2) and 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]

90. For closed vent systems and control devices, vapor recovery systems (for example, condensers and absorbers) 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 ppmv, whichever is less stringent. [40 CFR 60.482-10a(b)]

91. 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 ppmv, 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 °C. [40 CFR 60.482-10a(c)]

92. Flare used to comply with subpart VVa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)]

93. Owners or operators of control devices used to comply with the provisions of Subpart VVa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]

94. Except as provided in 40 CFR 60.482-10a(j) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 60.482-10a(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 compresor seals above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(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 60.482-10a(f) and (g), and District Rule 2201]

95. 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 60.482-10a(h)]
96. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)]

97. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)]

98. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]

99. 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 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(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 60.482-10a(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 60.482-10a(l)]

100. Closed vent systems and control devices used to comply with provisions Subpart VVa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)]

101. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after the initial startup under this permit. [40 CFR 60.482-11a]

102. Except as allowed in 40 CFR 60.482-11a(c), 40 CFR 60.482-10a, or as specified in 40 CFR 60.482-11a(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR Part 60.482-11a(a) and (b)(3). The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485a(b) and, as applicable, 40 CFR 60.485a(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-11a(b)(1) and (2) and District Rule 2201]

103. The owner or operator shall perform monitoring, subsequent to the initial monitoring of all connectors in the process unit, as specified in 40 CFR 60.482-11a(b)(3)(i) through (iii), and shall comply with the requirements of 40 CFR 60.482-11a(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 40 CFR 60.482-11a(b)(3) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 40 CFR 60.482-11a(c). [40 CFR 60.482-11a(b)(3) and 40 CFR 60.482-11a(c)]

104. When a leak is detected for any connector in gas/vapor service and 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-11a(d)]

105. Any connector in gas/vapor service and in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor connector is exempt from the requirements of 40 CFR 60.482-11a(a) and (b) if: 1) The owner or operator of the connector demonstrates that the connector is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11a(a) and (b); and 2) The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair the equipment according to the procedures in 40 CFR 60.482-11a(d) if a leak is detected. [40 CFR 60.482-11a(e)]
106. For any inaccessible, ceramic, or ceramic-lined connectors, any connector that is inaccessible or that is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 40 CFR 60.682-11a(a) and (b), from the leak repair requirements of 40 CFR 60.682-11a(d), and from the recordkeeping and reporting requirements. An inaccessible connector is one that meets any of the following provisions, as applicable: (i) Buried; (ii) Insulated in a manner that prevents access to the connector by a monitor probe; (iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe; (iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground; (v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or (vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment. If any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 CFR 60.682-11a(f)]

107. Except for instrumentation systems and inaccessible, ceramic, or ceramic-lined connectors meeting the provisions of 40 CFR 60.482-11a(f), the owner or operator shall identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. [40 CFR 60.482-11a(g)]

108. The owner or operator may elect to comply with alternative standards for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a. The owner or operator must notify the Administrator in writing before implementing alternative standards. [40 CFR 60.483-1a and 60.483-2a]

109. 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 VVa. [40 CFR 60.484a(a)]

110. 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 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(b) and District Rule 2201]

111. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a using Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of Appendix A-7. [40 CFR 60.485a(b) and District Rule 2201]

112. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(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 60.485a(c) and District Rule 2201]

113. 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, E168, E169 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 60.485a(d)]
114. 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 øC (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879 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 øC (1.2 in. H2O at 68 degrees F) is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)]

115. Samples used in conjunction with 40 CFR 60.485a(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 60.485a(f)]

116. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)]

117. The owner or operator shall record the following information for each monitoring event required by 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification, (ii) Operator identification, (iii) Equipment identification, (iv) Date of monitoring, and (v) Instrument reading. [40 CFR 60.486a(3)]

118. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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 60.482-7a(c) and no leak has been detected during those 2 months; 3) The identification on a connector may be removed after it has been monitored as specified in 60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring; 4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)]

119. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, 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, except when indication of liquids dripping from a pump are designated as a leak; 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) Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping; 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 shutdowns that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2201]

120. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a 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 60.482-10a(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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a 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 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]
121. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a 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 VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i), or 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 40 CFR 60.482-4a, and 40 CFR 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 7) Records of the information for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of 40 CFR 60 and 40 CFR 60.485a(b). These records shall include: (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR 60; (v) Results of each calibration drift assessment required by 40 CFR 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); and (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 8) The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11a(b)(3)(v); and 9) Records of each release from a pressure relief device subject to 40 CFR 60.482-4a. [40 CFR 60.486a(e)]

122. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; 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 60.486a(f)]

123. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]

124. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]

125. 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 60.480a(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 60.486a(i)]

126. 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 60.486a(j)]

127. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]

128. The owner or operator subject to the provisions of 40 CFR Part 60 Subpart VVa shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]
129. The initial semiannual report to the Administrator shall include the following information: 1) Process unit identification; 2) Number of valves subject to the requirements of 40 CFR 60.482-7a, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e) and those pumps complying with 40 CFR 60.482-2a(f); 4) Number of compressors subject to the requirements of 40 CFR 60.482-3a, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3a(i) and those compressors complying with 40 CFR 60.482-3a(h); and 5) Number of connectors subject to the requirements of 40 CFR 60.482-11a. [40 CFR 60.487a(b)]

130. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 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 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in 40 CFR 40 CFR 60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11a(d), and (ix) 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 semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]

131. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]

132. 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 60.487a(e)]

133. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air 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 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]

134. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2201 and 4624]

135. 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 or Rule 8011. [District Rules 8011 and 8021]

136. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

137. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

138. 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 or Rule 8011. [District Rules 8011 and 8051]

139. 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 or Rule 8041. [District Rules 8011 and 8061]
140. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

141. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

142. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

143. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

144. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-19-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS:
12300 FINCK RD
TRACY, CA 95304

LOCATION:
9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
39,165 GALLONS PER MINUTE MARLEY FIELD COOLING TOWER SERVED BY HIGH EFFICIENCY DRIFT ELIMINATORS

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. 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]

3. 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]

4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

5. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

6. {15} 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. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012]

8. The drift rate shall not exceed 0.0005%. [District Rule 2201]

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO
9. PM10 emissions shall not exceed 2.4 pounds in any one day. [District Rule 2201]

10. Compliance with the PM10 emission limit (lb/day) shall be demonstrated by using the following equation: Water Recirculation Rate (gal/day) x 8.34 lb/gal x Total Dissolved Solids Concentration in the blowdown water (ppm x 10E-06) x Design Drift Rate (%). [District Rule 2201]

11. Compliance with PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory within 60 days of the initial startup and at least once quarterly thereafter. [District Rule 2201]

12. The owner or operator shall monitor and record water recirculation rate (gal/day) at least once daily when the equipment is in operation. [District Rule 2201]

13. The owner or operator shall keep records of the date and PM10 emissions (lb/day). [District Rule 2201]

14. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

15. 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 or Rule 8011. [District Rules 8011 and 8021]

16. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

17. 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]

18. 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 or Rule 8011. [District Rules 8011 and 8051]

19. 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 or Rule 8011. [District Rules 8011 and 8061]

20. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

21. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

22. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

23. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

24. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-20-0
LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304
LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304
EQUIPMENT DESCRIPTION: 1,502 BHP CATERPILLAR MODEL C32 DIESEL-FUELED TIER 2 EMERGENCY STANDBY INTERNAL COMBUSTION ENGINE POWERING AN ELECTRIC GENERATOR

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]
2. The facility-wide NOx emissions shall not exceed 20,147 pounds during any 12 consecutive month rolling period. [District Rule 2201]
3. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]
4. 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]
5. 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]
6. (98) No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. (14) Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Manjolle, Director of Permit Services
N-8887-20-0 - Dec 11 2014 4:18PM - KAHLOU - Joint Inspection NOT Required
Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
8. 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]

9. 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]

10. Only CARB certified diesel fuel containing no more than 0.0015% sulfur by weight shall be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR 60.4207(b)]

11. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702, 17 CCR 93115 and 40 CFR Part 60.4209(a)]

12. Emissions from this engine shall not exceed any of the following: 4.93 g-NOx/bhp-hr, 0.13 g-CO/bhp-hr, 0.01 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR 60.4205(b)(2)]

13. PM10 emissions shall not exceed 0.02 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR 60.4205(b)(2)]

14. 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 60.4211(a)]

15. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]

16. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rules 4102 and 4702, 17 CCR 93115, and 40 CFR 60.4211(f)]

17. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the owner or operator. [District Rule 4702]

18. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702]

19. The owner or operator shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. 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 Rule 4702, 17 CCR 93115, and 40 CFR 60.4214(b)]

20. The owner or operator shall keep records of the facility-wide NOx and VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]

22. 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 or Rule 8011. [District Rules 8011 and 8021]

23. An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

24. An owner/operator shall prevent or cleanup any carryover or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]
25. 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 8011. [District Rules 8011 and 8051]

26. 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. [District Rules 8011 and 8061]

27. Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

28. Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

29. On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

30. Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

31. Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-8887-21-0

LEGAL OWNER OR OPERATOR: TRACY RENEWABLE ENERGY LLC
MAILING ADDRESS: 12300 FINCK RD
TRACY, CA 95304

LOCATION: 9251 W ARBOR AVE
TRACY, CA 95304

EQUIPMENT DESCRIPTION:
237 BHP JOHN DEERE CO MODEL JU6H-UFA88 TIER-3 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY
INTERNAL COMBUSTION ENGINE POWERING A FIREWATER PUMP ASSEMBLY

CONDITIONS

1. The owner or operator shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

2. The facility-wide NOx emissions shall not exceed 20,147 pounds during any 12 consecutive month rolling period. [District Rule 2201]

3. The facility-wide VOC emissions shall not exceed 25,866 pounds during any 12 consecutive month rolling period. [District Rule 2201]

4. 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]

5. 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]

6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Amaud Marjolleir, Director of Permit Services

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475
8. {15} 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]

9. 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]

10. Only CARB certified diesel fuel containing no more than 0.0015% sulfur by weight shall be used. [District Rules 2201 and 4801, 17 CCR 93115, and 40 CFR 60.4207(b)]

11. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rules 2201 and 4702, 17 CCR 93115, and 40 CFR Part 60.4209(a)]

12. Emissions from this engine shall not exceed any of the following: 2.7 g-NOx/bhp-hr, 0.9 g-CO/bhp-hr, 0.1 g-VOC/bhp-hr. [District Rule 2201, 17 CCR 93115, and 40 CFR 60.4205(c)]

13. PM10 emissions shall not exceed 0.1 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 17 CCR 93115, and 40 CFR 60.4205(c)]

14. 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 60.4211(a)]

15. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]

16. This engine shall be operated only for testing and maintenance of the engine, 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", 2002 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 4102 and 4702, 17 CCR 93115, and 40 CFR 60.4211(f)]

17. The owner or operator shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. 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 Rule 4702, 17 CCR 93115, and 40 CFR 60.4214(b)]

18. The owner or operator shall keep records of the facility-wide NOx and VOC emissions (in pounds). These records shall be on a rolling 12 consecutive month total basis and shall be updated at least monthly. [District Rule 2201]

19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4702, 17 CCR 93115]

20. {3433} 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 or Rule 8011. [District Rules 8011 and 8021]

21. {3434} An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. [District Rules 8011 and 8021]

22. {3435} 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 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8021]
23. {3436} 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 or Rule 8011. [District Rules 8011 and 8051]

24. {3437} 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 or Rule 8011. [District Rules 8011 and 8061]

25. {3438} Water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure shall be applied to unpaved vehicle travel areas as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

26. {3439} Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rule 8011 and 8071]

27. {3440} On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rule 8011 and 8071]

28. {3441} Whenever any portion of the site becomes inactive, Permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]

29. {3442} Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]
Appendix II
Top-Down BACT Analysis
Top-Down BACT Analysis for Boilers N-8887-1-0, '2-0
Top-Down BACT Analysis for NOx Emissions

Step 1: Identify All Possible Control Technologies

The District considers the following BACT standards for NOx for boilers greater than 20.0 MMBtu/hr:

Achieved-in-Practice:
7 ppmvd @ 3% O₂ (0.008 lb/MMBtu)

Technologically Feasible:
5 ppmvd @ 3% O₂ (0.0062 lb/MMBtu)

Alternate Basic Equipment:
None

Step 2: Eliminate Technologically Infeasible Options

All control options listed in step 1 are technologically feasible.

Step 3: Rank Remaining Control Technologies by Control Effectiveness

1. 5 ppmvd @ 3% O₂ (0.007 lb/MMBtu) - Technologically Feasible
2. 7 ppmvd @ 3% O₂ (0.011 lb/MMBtu) - Achieved-in-Practice

Step 4: Cost Effectiveness Analysis

The applicant has proposed to achieve 5 ppmvd NOx @ 3% O₂ (or less), which is the most stringent NOx BACT standard listed in Step 3. Therefore, cost-effectiveness analysis is not required.

Step 5: Select BACT

The applicant has proposed to achieve 5 ppmvd NOx @ 3% O₂ (or less). This standard satisfies the District BACT requirements for NOx emissions.
Top-Down BACT Analysis for SOx, PM$_{10}$ and VOC Emissions

Step 1: Identify All Possible Control Technologies

The District considers the following BACT standards to reduce SOx, PM$_{10}$ and VOC emissions:

Achieved-in-Practice:
Use natural gas, or LPG fuel

Technologically Feasible:
None

Alternate Basic Equipment:
None

Step 2: Eliminate Technologically Infeasible Options

All control options listed in step 1 are technologically feasible.

Step 3: Rank Remaining Control Technologies by Control Effectiveness

1. Use of natural gas or LPG fuel

Step 4: Cost Effectiveness Analysis

There is no technologically feasible option in Step 3 for which cost-effectiveness analysis is required.

Step 5: Select BACT

BACT requirement is to use natural gas or LPG fuels.
District BACT Guideline 4.12.4
&
Top-Down BACT Analysis for process tanks under
N-8887-5-0: Fermentation operation
N-8887-6-0: Beerwell tank
N-8887-8-0: Fermented wash holding tank
San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 4.12.4*
Last Update 2/17/2004

Ethanol Fermentation Process Tanks Including: Fermentation Tanks and Beerwell Storage Tanks

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Achieved In Practice or contained in the SIP</th>
<th>Technologically Feasible</th>
<th>Alternate Basic Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>99.5% VOC emissions control efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(fermentation wet scrubber</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>vented to a CO12 recovery plant with a</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>condenser and a high pressure scrubber; or</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>equivalent)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

*This Is a Summary Page for this Class of Source

4.12.4
Top-Down BACT Analysis for VOC Emissions

Step 1 - Identify All Possible Control Technologies

BACT Guideline 4.12.4 is referenced for determining BACT for the process emissions that are being emanated from the processing tanks. This guideline lists the following achieved-in-practice, technologically feasible and alternate options to reduce VOC emissions:

- **Achieved-in-practice:** 99.5% VOC emissions control efficiency
- **Technologically feasible:** None
- **Alternative basic equipment:** None

Step 2 - Eliminate Technologically Infeasible Options

There is no technologically infeasible option in Step 1.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. 99.5% VOC emissions control efficiency

Step 4 - Cost Effectiveness Analysis

Cost effectiveness analysis is not required since the technology listed in Step 3 is achieved-in-practice.

Step 5 - Select BACT

The BACT for the proposed operation is to achieve at least 99.5% control efficiency for VOC emissions.

The applicant has proposed to use CO2 scrubber and a high pressure condenser system to achieve 99.5% VOC control efficiency. Therefore, BACT requirements are satisfied.
District BACT Guideline 7.1.10
&
Top-Down BACT Analysis

N-8887-18-0: Denatured ethanol loading operation
## Loading Rack/Switch Loading

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Achieved in Practice or contained in the SIP</th>
<th>Technologically Feasible</th>
<th>Alternate Basic Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>natural gas fired pilot and air assist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOx</td>
<td>natural gas or LPG fired pilot and air assist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM10</td>
<td>air assisted flare with smokeless combustion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOx</td>
<td>natural gas fired flare</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>bottom loading with dry break couplers and vapor collection vented to a thermal incinerator or flare with destruction efficiency $=&gt; 99%$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

*This is a Summary Page for this Class of Source*
**Top-Down BACT Analysis for VOC Emissions**

**Step 1 - Identify All Possible Control Technologies**

BACT guideline 7.1.10 is referenced to determine BACT for the VOC emissions from loading racks. This guideline lists the following achieved-in-practice, technologically feasible and alternate options to reduce VOC emissions:

Achieved-in-practice: Bottom loading with dry break coupler and VOC collection vented to a thermal incinerator or flare with destruction efficiency ≥ 99%

Technologically feasible: None

Alternative basic equipment: None

**Step 2 - Eliminate Technologically Infeasible Options**

There is no technologically infeasible option in Step 1.

**Step 3 - Rank Remaining Control Technologies by Control Effectiveness**

1. Bottom loading with dry break coupler and VOC collection vented to a thermal incinerator or flare with destruction efficiency ≥ 99%

**Step 4 - Cost Effectiveness Analysis**

Cost effectiveness analysis is not required since the technology listed in Step 3 is achieved-in-practice.

**Step 5 - Select BACT**

The BACT for denatured ethanol loading operation is to use bottom loading technique with dry break couplers, and vent the VOC collection to a thermal incinerator or flare with destruction efficiency of at least 99%.

The applicant has proposed to load denatured ethanol into tanker trucks using bottom loading technique with the use of dry break couplers, and vent the emissions collected from the tanker trucks to the vapor control system capable of reducing at least 99% of VOC emissions. Therefore, BACT requirements are satisfied.
District BACT Guideline 8.3.10
&
Top-Down BACT Analysis for
N-8887-19-0: Cooling tower
BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

*This is a Summary Page for this Class of Source

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Achieved in Practice or contained in the SIP</th>
<th>Technologically Feasible</th>
<th>Alternate Basic Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM10</td>
<td></td>
<td>Cellular Type Drift Eliminator</td>
<td></td>
</tr>
</tbody>
</table>
Top-Down BACT Analysis for PM$_{10}$ Emissions

Step 1 - Identify All Possible Control Technologies

SJVAPCD BACT Clearinghouse Guideline 8.3.10 lists the following emissions limits or control technologies:

**Achieved-in-Practice**
None

**Technologically Feasible**
Cellular type drift eliminator

**Alternate Basic Equipment**
None

Step 2 – Eliminate Technologically Infeasible Options

All of the listed controls are considered technologically feasible for this application.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

1. Cellular type drift eliminator

Step 4 - Cost Effectiveness Analysis

A cost effectiveness analysis must be performed for all control options in the list from Step 3 in the order of their rank to determine the cost effective option with the lowest emissions.

The proposed cooling tower will be equipped with a high efficiency drift eliminators. This is the only ranking control option listed in Step 3 above. Therefore, in accordance with District policy APR 1305 (BACT), Section IX.D, a cost effective analysis is not necessary and no further discussion is required.

Step 5 - Select BACT

BACT for the cooling tower is to use cellular type drift eliminators. The proposed cooling tower will be equipped with high efficiency drift eliminators. Therefore, BACT requirements are satisfied.
District BACT Guideline 3.1.1
&
Top-Down BACT Analysis for
N-8887-20-0: Emergency IC Engine Powering Electrical Generator
San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.1.1*
Last Update: 9/10/2013

Emergency Diesel IC engine

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Achieved in Practice or contained in the SIP</th>
<th>Technologically Feasible</th>
<th>Alternate Basic Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>Latest EPA Tier Certification level for applicable horsepower range*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOX</td>
<td>Very low sulfur diesel fuel (15 ppmw sulfur or less)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM10</td>
<td>0.15 g/bhp-hr or the Latest EPA Tier Certification level for applicable horsepower range, whichever is more stringent. (ATCM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOX</td>
<td>Latest EPA Tier Certification level for applicable horsepower range*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>Latest EPA Tier Certification level for applicable horsepower range*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: for emergency engines 50 <= bhp < 75, Tier 4 Interim certification is the requirement; for emergency engines 75 <= bhp < 750, Tier 3 certification is the requirement; for emergency engines >= 750 bhp, Tier 2 certification is the requirement.

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

*This is a Summary Page for this Class of Source
Top-Down BACT Analysis for NOx Emissions

Step 1 - Identify All Possible Control Technologies

SJVAPCD BACT Clearinghouse Guideline 3.1.1 lists the following emissions limits or control technologies:

Achieved-in-Practice
NOx: Latest EPA Tier Certification (for emergency engines ≥ 750 bhp, Tier 2 Certified)

Technologically Feasible
None

Alternate Basic Equipment
None

Step 2 – Eliminate Technologically Infeasible Options

All of the listed controls are considered technologically feasible for this application.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

1. Latest EPA Tier Certification (for emergency engines ≥ 750 bhp, Tier 2 Certified)

Step 4 - Cost Effectiveness Analysis

There is no technologically feasible option or alternate basic equipment listed in step 3 (above) for which a cost effectiveness analysis is required.

Step 5 - Select BACT

For the proposed 1,502 bhp emergency IC engine, BACT would be to install Tier 2 certified engine. TRE has proposed to install Tier 2 certified engine. Therefore, BACT requirements are satisfied.
District BACT Guideline 3.1.4
&
Top-Down BACT Analysis for
N-8887-21-0: Emergency IC Engine Powering Fire Pump Assembly
San Joaquin Valley  
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.1.4*  
Last Update:  6/30/2001

Emergency Diesel I.C. Engine Driving a Fire Pump

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Achieved in Practice or contained in the SIP</th>
<th>Technologically Feasible</th>
<th>Alternate Basic Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>Positive crankcase ventilation (unless it voids the Underwriters Laboratories (UL) certification)</td>
<td>Catalytic Oxidation</td>
<td></td>
</tr>
<tr>
<td>SOx</td>
<td>Low-sulfur diesel fuel (500 ppmw sulfur or less) or Very Low-sulfur diesel fuel (15 ppmw sulfur or less), where available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM10</td>
<td>0.1 grams/bhp-hr (if TBACT is triggered) (corrected 7/16/01) 0.4 grams/bhp-hr (if TBACT is not triggered)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOx</td>
<td>Certified NOx emissions of 6.9 g/bhp-hr or less</td>
<td></td>
<td>Oxidation Catalyst</td>
</tr>
<tr>
<td>CO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Any engine model included in the ARB or EPA diesel engine certification lists and identified as having a PM10 emission rate of 0.149 grams/bhp-hr or less, based on ISO 8178 test procedure, shall be deemed to meet the 0.1 grams/bhp-hr requirement.

2. A site-specific Health Risk Analysis is used to determine if TBACT is triggered. (Clarification added 05/07/01)

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state Implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

*This is a Summary Page for this Class of Source

3.1.4
Top-Down BACT Analysis for NOx Emissions

Step 1 - Identify All Possible Control Technologies

SJVAPCD BACT Clearinghouse Guideline 3.1.4 lists the following emissions limits or control technologies:

Achieved-in-Practice
NOx: Certified NOx emissions of 6.9 g/bhp-hr or less

Technologically Feasible
None

Alternate Basic Equipment
None

Step 2 - Eliminate Technologically Infeasible Options

All of the listed controls are considered technologically feasible for this application.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Certified NOx emissions of 6.9 g/bhp-hr or less

Step 4 - Cost Effectiveness Analysis

There is no technologically feasible option or alternate basic equipment listed in step 3 (above) for which a cost effectiveness analysis is required.

Step 5 - Select BACT

For the proposed fire pump engine, BACT would be to install a certified engine capable of achieving 6.9 g-NOx/bhp-hr or less. TRE has proposed to install Tier 3 certified engine capable of achieving 2.7 g-NOx/bhp-hr. Therefore, BACT requirements are satisfied.
Appendix III
HAPs Worksheet
## Potential to Emit (HAP)

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Pollutant</th>
<th>Boilers</th>
<th>Scrubber vent serving yeast prep, pro-fermenters, yeast cream separation, distillation, condensate tank, viruses processing, storage and loadout</th>
<th>CO2 scrubber serving fermentation operation, beermat and fermented wash tank</th>
<th>200-proof ethanol storage tanks</th>
<th>Best pulp processing and loadout operation served by RTO</th>
<th>20,000 gallon gasoline storage tank</th>
<th>Demolished ethanol boiling operation</th>
<th>Costing tower</th>
<th>1922 bhp diesel emergency IC Engine</th>
<th>237 bhp diesel emergency fire pump engine</th>
<th>Total HAP</th>
<th>HAP Total lbs</th>
</tr>
</thead>
</table>
Appendix IV
Risk Management Review and AAQA Summary
### A. RMR SUMMARY

<table>
<thead>
<tr>
<th>Categories</th>
<th>Boiler w/ammonia (Unit 1-0)</th>
<th>Boiler w/ammonia (Unit 2-0)</th>
<th>RTO (Unit 16-0)</th>
<th>Carbon absorber (Unit 18-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritization Score</td>
<td>1.38</td>
<td>1.38</td>
<td>0.06</td>
<td>0.50</td>
</tr>
<tr>
<td>Acute Hazard Index</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Chronic Hazard Index</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Maximum Individual Cancer Risk (10^-6)</td>
<td>0.50</td>
<td>0.53</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>T-BACT Required?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Special Permit Conditions?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Categories</th>
<th>Tanks (Unit 12-0 thru 14-0)</th>
<th>Loading rack (17-0)</th>
<th>Best Recieving (Unit 3-0)</th>
<th>Co2 scrubber (Unit 4-0)</th>
<th>Carbon absorber (Unit 5-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritization Score</td>
<td>0.00</td>
<td>0.05</td>
<td>0.27</td>
<td>22.2</td>
<td>20.8</td>
</tr>
<tr>
<td>Acute Hazard Index</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
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<tr>
<td>Chronic Hazard Index</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Maximum Individual Cancer Risk (10^-6)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.30</td>
<td>0.29</td>
</tr>
<tr>
<td>T-BACT Required?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Special Permit Conditions?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
### Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

**Unit # 1-0 thru 14-0 & 16-0 thru 18-0**

No special conditions are required.

**Unit # 20-0**

1. The PM10 emissions rate shall not exceed 0.02 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201]
2. 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]
3. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702 and 17 CCR 93115]

**Unit # 21-0**

1. The PM10 emissions rate shall not exceed 0.1 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201]
2. 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]
3. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702 and 17 CCR 93115]
T-BACT is required for this unit because of emissions of Diesel Exhaust which is a PM-10 (21-0). In accordance with District policy, BACT for this unit will be considered to be T-BACT.

B. RMR REPORT

I. Project Description

Technical Services received a request on August 28, 2014, to perform an Ambient Air Quality Analysis and a Risk Management Review for the installation of a new treated water desalinization plant as well as a distiller beet-to-ethanol production plant.

II. Analysis

Technical Services performed a prioritization using the District's HEARTs database. Since the total facility prioritization score was greater than one, a refined health risk assessment was required. The AERMOD model was used, with the parameters outlined below and meteorological data for 2005-2009 from Tracy to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the Hot Spots Analysis and Reporting Program (HARP) risk assessment module to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following emission factors to for the Analysis:

1. Ventura County's emission factors for external combustion of natural gas was used for the two Natural Gas boilers with ammonia slip (1-0 & 2-0) and the RTO (16-0);
2. Emissions from the storage of denatured ethanol were calculated using the worse case scenario emissions in our database (18-0)
3. Diesel IC engine risk was calculated using DICE program (20-0 &21-0).
4. Fugitive dust emission factors for Beet receiving and processing (3-0)
5. ACE Ethanol emission factors for fermentation (4-0 thru 11-0)
6. Ace Ethanol Ethanol Storage Emission factors (12-0,13-0, & 14-0)
7. Ace Ethanol Gasolne loding rack emission factors (17-0)

The following parameters were used for the review:

<table>
<thead>
<tr>
<th>Process</th>
<th>Stack Diameter (inches)</th>
<th>Exhaust Height (feet)</th>
<th>Gas Exit Flowrate (units)</th>
<th>Exhaust Temperature (°F)</th>
<th>Exhaust Direction</th>
<th>Rain Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-8887-1-0</td>
<td>51.5</td>
<td>50</td>
<td>59,506 cfm</td>
<td>300</td>
<td>Vertical</td>
<td>None</td>
</tr>
<tr>
<td>N-8887-2-0</td>
<td>51.5</td>
<td>50</td>
<td>59,506 cfm</td>
<td>300</td>
<td>Vertical</td>
<td>None</td>
</tr>
<tr>
<td>N-8887-4-0 thru 11-0</td>
<td>36</td>
<td>50</td>
<td>29,760</td>
<td>220</td>
<td>Vertical</td>
<td>None</td>
</tr>
<tr>
<td>N-8887-12-0 thru 14-0</td>
<td>36</td>
<td>50</td>
<td>29,760</td>
<td>220</td>
<td>Vertical</td>
<td>None</td>
</tr>
</tbody>
</table>
Technical Services performed modeling for criteria pollutants CO, NOx, SOx and PM10 for units 1-0, 2-0, 16-0, 20-0, & 21-0. The emission rates used for criteria pollutant modeling were:

<table>
<thead>
<tr>
<th>Pollutant/Unit</th>
<th>1-0</th>
<th>2-0</th>
<th>16-0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lb/hr</td>
<td>lb/yr</td>
<td>lb/hr</td>
</tr>
<tr>
<td>NOx</td>
<td>1.68</td>
<td>9,505</td>
<td>1.68</td>
</tr>
<tr>
<td>CO</td>
<td>6.475</td>
<td>56,721</td>
<td>6.475</td>
</tr>
<tr>
<td>PM10</td>
<td>0.525</td>
<td>4,599</td>
<td>0.525</td>
</tr>
<tr>
<td>SOx</td>
<td>0.499</td>
<td>4,369</td>
<td>0.499</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pollutant/Unit</th>
<th>20-0</th>
<th>21-0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lb/hr</td>
<td>lb/yr</td>
</tr>
<tr>
<td>NOx</td>
<td>16.325</td>
<td>816</td>
</tr>
<tr>
<td>CO</td>
<td>0.429</td>
<td>22</td>
</tr>
<tr>
<td>PM10</td>
<td>0.067</td>
<td>3</td>
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<tr>
<td>SOx</td>
<td>0.017</td>
<td>1</td>
</tr>
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</table>

The results from the Criteria Pollutant Modeling are as follows:

**Criteria Pollutant Modeling Results**

<table>
<thead>
<tr>
<th>Diesel ICE</th>
<th>1 Hour</th>
<th>3 Hours</th>
<th>8 Hours.</th>
<th>24 Hours</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>Pass</td>
<td>X</td>
<td>Pass</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NOx</td>
<td>Pass¹</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Pass²</td>
</tr>
<tr>
<td>SOx</td>
<td>Pass</td>
<td>X</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass²</td>
</tr>
<tr>
<td>PM10</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Pass²</td>
<td>Pass²</td>
</tr>
<tr>
<td>PM&lt;sub&gt;2.5&lt;/sub&gt;</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Pass²</td>
<td>Pass²</td>
</tr>
</tbody>
</table>

¹Results were taken from the attached PSD spreadsheet.
²The project was compared to the 1-hour NO2 National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures The Ozone Limiting Method (OLM) or Plume Volume Molar Ratio Method (PVMRM) was used in accordance with the District's Assessment of Non-Regulatory Options in AERMOD – Specifically OLM and PVMRM. A completed AERMOD Non-Regulatory Option checklist is attached.
³The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusion
The acute and chronic indices are below 1.0 and the cancer risk associated with the project is greater than 1.0 in a million, but less than 10 in a million. In accordance with the District's Risk Management Policy, the project is approved with Toxic Best Available Control Technology (T-BACT).

To ensure that human health risks will not exceed District allowable levels; the permit conditions listed on page 1 of this report must be included for this proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

IV. Attachments

A. RMR request from the project engineer
B. Additional information from the applicant/project engineer
C. Toxic emissions summary
D. Prioritization score
E. Facility Summary
Appendix V

T-BACT Analysis for N-8887-21-0
San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.1.4*
Last Update: 6/30/2001

Emergency Diesel I.C. Engine Driving a Fire Pump

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Achieved in Practice or contained in the SIP</th>
<th>Technologically Feasible</th>
<th>Alternate Basic Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>Positive crankcase ventilation (unless it voids the Underwriters Laboratories (UL) certification)</td>
<td>Catalytic Oxidation</td>
<td></td>
</tr>
<tr>
<td>SOx</td>
<td>Low-sulfur diesel fuel (500 ppmw sulfur or less) or Very Low-sulfur diesel fuel (15 ppmw sulfur or less), where available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM10</td>
<td>0.1 grams/bhp-hr (if TBACT is triggered) (corrected 7/16/01) 0.4 grams/bhp-hr (if TBACT is not triggered)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOx</td>
<td>Certified NOx emissions of 6.9 g/bhp-hr or less</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>Oxidation Catalyst</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Any engine model included in the ARB or EPA diesel engine certification lists and identified as having a PM10 emission rate of 0.149 grams/bhp-hr or less, based on ISO 8178 test procedure, shall be deemed to meet the 0.1 grams/bhp-hr requirement.
2. A site-specific Health Risk Analysis is used to determine if TBACT is triggered. (Clarification added 05/07/01)

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

*This is a Summary Page for this Class of Source

3.1.4
T-BACT Analysis for PM\textsubscript{10} Emissions

Step 1: Identify All Possible Control Technologies

The District considers the following BACT standards to reduce PM\textsubscript{10} emissions:

**Achieved-in-Practice:**
\begin{itemize}
  \item PM\textsubscript{10}: 0.1 g/bhp-hr
\end{itemize}

**Technologically Feasible:**
None

**Alternate Basic Equipment:**
None

Step 2: Eliminate Technologically Infeasible Options

All control options listed in step 1 are technologically feasible.

Step 3: Rank Remaining Control Technologies by Control Effectiveness

1. Achieve 0.1 g-PM\textsubscript{10}/bhp-hr or less

Step 4: Cost Effectiveness Analysis

There is no technologically feasible option in Step 3 for which cost-effectiveness analysis is required.

Step 5: Select BACT

PM\textsubscript{10} BACT would be to achieve 0.1 g/bhp-hr (or less) emissions. The proposed engine is certified to achieve this standard. Thus, BACT requirements are satisfied.
Appendix VI
Compliance Certification Letter
November 4, 2014

Mr. Nick Peirce  
San Joaquin Valley Air Pollution Control District  
4800 Enterprise Way  
Modesto CA 95356-8718

Subject: Compliance Statement for Tracy Desalinization and Green Energy Project

Dear Mr. Peirce:

In accordance with Rule 2201, Section 4.15, "Additional Requirements for New Major Sources and Federal Major Modifications," Tracy Desalinization and Green Energy Project is pleased to provide this compliance statement regarding its desalinization and ethanol production project N-1132068.

All major stationary sources in California owned or operated by Tracy Renewable Energy, LLC, or by any entity controlling, controlled by, or under common control with Tracy Desalinization and Green Energy Project, and which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards. These sources include one or more of the following facilities:

Facility #1: Tracy Desalinization and Green Energy Project  
9251 W. Arbor Ave  
Tracy, California 95304

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Please contact me if you have any questions regarding this certification.

Sincerely,

Frank Schubert  
President  
Tracy Renewable Energy LLC  
Tracy Desalinization and Green Energy Project
Appendix VII
Potential Emissions from N-8887-12-0 or '13 and '14
# TANKS 4.0.9d

Emissions Report - Detail Format

## Tank Identification and Physical Characteristics

<table>
<thead>
<tr>
<th>Identification</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>User Identification:</td>
<td>N-8887-12-0 (127,000 gal)</td>
</tr>
<tr>
<td>City:</td>
<td>Tracy</td>
</tr>
<tr>
<td>State:</td>
<td>California</td>
</tr>
<tr>
<td>Company:</td>
<td>Tracy Renewable Energy LLC</td>
</tr>
<tr>
<td>Type of Tank:</td>
<td>Internal Floating Roof Tank</td>
</tr>
<tr>
<td>Description:</td>
<td>200 Proof Ethanol Tank</td>
</tr>
</tbody>
</table>

## Tank Dimensions

| Diameter (ft):                  | 30.00                                    |
| Volume (gallons):               | 127,000.00                               |
| Turnovers:                      | 32.95                                    |
| Self Supp. Roof? (y/n):         | N                                        |
| No. of Columns:                 | 1.00                                     |
| Eff. Col. Diam. (ft):           | 1.00                                     |

## Paint Characteristics

| Internal Shell Condition:       | Light Rust                               |
| Shell Color/Shade:              | White/White                              |
| Shell Condition:                | Good                                     |
| Roof Color/Shade:               | White/White                              |
| Roof Condition:                 | Good                                     |

## Rim-Seal System

| Primary Seal:                   | Mechanical Shoe                          |
| Secondary Seal:                 | Shoe-mounted                              |

## Deck Characteristics

| Deck Fitting Category:          | Typical                                   |
| Deck Type:                      | Welded                                    |

## Deck Fitting/Status

<table>
<thead>
<tr>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed</td>
</tr>
<tr>
<td>Automatic Gauge Float Well/Unbolted Cover, Ungasketed</td>
</tr>
<tr>
<td>Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Ungask</td>
</tr>
<tr>
<td>Ladder Well (36-in. Diam.)/Sliding Cover, Ungaskated</td>
</tr>
<tr>
<td>Roof Leg or Hanger Well/Adjustable</td>
</tr>
<tr>
<td>Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open</td>
</tr>
<tr>
<td>Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.</td>
</tr>
</tbody>
</table>

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)
## N-8887-12-0 (127,000 gal) - Internal Floating Roof Tank
Tracy, California

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>Jul 72.25</td>
<td>63.02</td>
<td>81.48</td>
<td>61.57</td>
<td>0.9906</td>
<td>N/A</td>
<td>N/A</td>
<td>46.0700</td>
</tr>
</tbody>
</table>
N-8887-12-0 (127,000 gal) - Internal Floating Roof Tank
Tracy, California

<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rim Seal Losses (lb):</td>
<td>3,2099</td>
<td>1,6000</td>
<td>0.3000</td>
<td>0.0174</td>
<td>0.0000</td>
<td>30.0000</td>
<td>1.0000</td>
<td>32.0500</td>
<td>1.0000</td>
<td>32.0500</td>
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<tr>
<td>Seal Factor A (lb-mole/ft-yr):</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
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<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>Seal Factor B (lb-mole/ft-yr (mole)^n):</td>
<td>4,185,000,000</td>
<td>4,185,000,000</td>
<td>4,185,000,000</td>
<td>4,185,000,000</td>
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<td>4,185,000,000</td>
<td>4,185,000,000</td>
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<tr>
<td>Average Organic Liquid Density (lb/bbl):</td>
<td>30.0000</td>
<td>30.0000</td>
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<td>30.0000</td>
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<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
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<tbody>
<tr>
<td>Withdrawal Losses (lb):</td>
<td>18,0688</td>
<td>0.0174</td>
<td>46,0700</td>
<td>1.0000</td>
<td>275,2000</td>
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<td>39,0000</td>
<td>46,0700</td>
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<td>Number of Columns:</td>
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<tr>
<td>Effective Column Diameter (ft):</td>
<td>30.0000</td>
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<td>30.0000</td>
<td>30.0000</td>
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<td>30.0000</td>
<td>30.0000</td>
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<tr>
<td>Tank Diameter (ft):</td>
<td>30.0000</td>
<td>30.0000</td>
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<td>30.0000</td>
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<td>30.0000</td>
<td>30.0000</td>
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<tr>
<td>Deck Fitting Loss Factors (lb):</td>
<td>36.0000</td>
<td>5.90</td>
<td>36.0000</td>
<td>5.90</td>
<td>36.0000</td>
<td>5.90</td>
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<tr>
<td>Total Roof Fitting Loss Factors (lb-mole/yr):</td>
<td>1.20</td>
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<td>0.00</td>
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<tr>
<td>Total Losses (lb):</td>
<td>53,3687</td>
<td></td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Roof Fitting/Status</th>
<th>Quantity</th>
<th>KFa(lb-mole/yr)</th>
<th>KFb(lb-mole/yr)</th>
<th>Kf(lb-mole/yr mph^n)</th>
<th>m</th>
<th>Losses(lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Hatch (24-in. Dia.) Unbolted Cover, Ungasketed</td>
<td>1</td>
<td>36.00</td>
<td>5.90</td>
<td>36.00</td>
<td>5.90</td>
<td>2.4530</td>
</tr>
<tr>
<td>Automatic Gauge Float Well Unbolted Cover, Ungasketed</td>
<td>1</td>
<td>14.00</td>
<td>5.40</td>
<td>14.00</td>
<td>5.40</td>
<td>0.9542</td>
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<tr>
<td>Column Well (24-in. Dia.) Slit-Up Cap Sliding Cover, Ungasketed</td>
<td>1</td>
<td>47.00</td>
<td>0.00</td>
<td>47.00</td>
<td>0.00</td>
<td>3.2033</td>
</tr>
<tr>
<td>Ladder Well (36-in. Dia.) Sliding Cover, Ungasketed</td>
<td>1</td>
<td>76.00</td>
<td>0.00</td>
<td>76.00</td>
<td>0.00</td>
<td>5.1797</td>
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<tr>
<td>Roof Leg or Hanger Well Adjustable</td>
<td>10</td>
<td>7.90</td>
<td>0.00</td>
<td>7.90</td>
<td>0.00</td>
<td>5.3642</td>
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<tr>
<td>Sample Pipe or Well (24-in. Dia.) Slit Fabric Seal 10% Open</td>
<td>1</td>
<td>12.00</td>
<td>0.00</td>
<td>12.00</td>
<td>0.00</td>
<td>0.8179</td>
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<tr>
<td>Vacuum Breaker (10-in. Dia.) Weighted Man. Actuation, Gasketed</td>
<td>1</td>
<td>2.425</td>
<td>1.20</td>
<td>2.425</td>
<td>1.20</td>
<td>0.4225</td>
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</table>

TANKS 4.0.9d
Emissions Report - Detail Format

file:///C:/Program%20Files%20(x86)/Tanks409d/summarydisplay.htm 6/11/2014
Individual Tank Emission Totals

Emissions Report for: July

N-8887-12-0 (127,000 gal) - Internal Floating Roof Tank
Tracy, California

<table>
<thead>
<tr>
<th>Components</th>
<th>Rim Seal Loss</th>
<th>Withdrawal Loss</th>
<th>Deck Fitting Loss</th>
<th>Deck Seam Loss</th>
<th>Total Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>3.21</td>
<td>32.09</td>
<td>18.07</td>
<td>0.00</td>
<td>53.37</td>
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</table>
TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

<table>
<thead>
<tr>
<th>Identification</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>User Identification</td>
<td>N-8887-12-0 (127,000 gal)</td>
</tr>
<tr>
<td>City</td>
<td>Tracy</td>
</tr>
<tr>
<td>State</td>
<td>California</td>
</tr>
<tr>
<td>Company</td>
<td>Tracy Renewable Energy LLC</td>
</tr>
<tr>
<td>Type of Tank</td>
<td>Internal Floating Roof Tank</td>
</tr>
<tr>
<td>Description</td>
<td>200 Proof Ethanol Tank</td>
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</table>

<table>
<thead>
<tr>
<th>Tank Dimensions</th>
<th>Details</th>
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<tbody>
<tr>
<td>Diameter (ft)</td>
<td>30.00</td>
</tr>
<tr>
<td>Volume (gallons)</td>
<td>127,000.00</td>
</tr>
<tr>
<td>Turnovers</td>
<td>314.96</td>
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<tr>
<td>Self Supp. Roof? (y/n)</td>
<td>N</td>
</tr>
<tr>
<td>No. of Columns</td>
<td>1.00</td>
</tr>
<tr>
<td>Eff. Col. Diam. (ft)</td>
<td>1.00</td>
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<table>
<thead>
<tr>
<th>Paint Characteristics</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Shell Condition</td>
<td>Light Rust</td>
</tr>
<tr>
<td>Shell Color/ Shade</td>
<td>White/White</td>
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<tr>
<td>Shell Condition</td>
<td>Good</td>
</tr>
<tr>
<td>Roof Color/ Shade</td>
<td>White/White</td>
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<tr>
<td>Roof Condition</td>
<td>Good</td>
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<table>
<thead>
<tr>
<th>Rim-Seal System</th>
<th>Details</th>
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<tbody>
<tr>
<td>Primary Seal</td>
<td>Mechanical Shoe</td>
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<tr>
<td>Secondary Seal</td>
<td>Shoe-mounted</td>
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<table>
<thead>
<tr>
<th>Deck Characteristics</th>
<th>Details</th>
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<tr>
<td>Deck Fitting Category</td>
<td>Typical</td>
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<tr>
<td>Deck Type</td>
<td>Welded</td>
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<table>
<thead>
<tr>
<th>Deck Fitting/ Status</th>
<th>Quantity</th>
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</thead>
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<tr>
<td>Access Hatch</td>
<td>1</td>
</tr>
<tr>
<td>Automatic Gauge Float</td>
<td>1</td>
</tr>
<tr>
<td>Column Well</td>
<td>1</td>
</tr>
<tr>
<td>Ladder Well</td>
<td>1</td>
</tr>
<tr>
<td>Roof Leg or Hanger Well</td>
<td>10</td>
</tr>
<tr>
<td>Sample Pipe or Well</td>
<td>1</td>
</tr>
<tr>
<td>Vacuum Breaker</td>
<td>1</td>
</tr>
</tbody>
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Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)
# Liquid Contents of Storage Tank

N-8887-12-0 (127,000 gal) - Internal Floating Roof Tank
Tracy, California

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>Jan</td>
<td>55.08</td>
<td>51.49</td>
<td>58.67</td>
<td>61.57</td>
<td>0.5545</td>
<td>46.07</td>
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<tr>
<td>Ethyl alcohol</td>
<td>Feb</td>
<td>57.96</td>
<td>53.17</td>
<td>62.75</td>
<td>61.57</td>
<td>0.6131</td>
<td>46.07</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>Mar</td>
<td>60.22</td>
<td>54.36</td>
<td>66.07</td>
<td>61.57</td>
<td>0.6627</td>
<td>46.07</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>Apr</td>
<td>63.26</td>
<td>58.98</td>
<td>70.54</td>
<td>61.57</td>
<td>0.7350</td>
<td>46.07</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>May</td>
<td>67.10</td>
<td>58.83</td>
<td>75.36</td>
<td>61.57</td>
<td>0.8360</td>
<td>46.07</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>Jun</td>
<td>70.33</td>
<td>61.45</td>
<td>79.22</td>
<td>61.57</td>
<td>0.9304</td>
<td>46.07</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>Jul</td>
<td>72.25</td>
<td>63.02</td>
<td>81.40</td>
<td>61.57</td>
<td>0.9906</td>
<td>46.07</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>Aug</td>
<td>71.45</td>
<td>62.84</td>
<td>80.06</td>
<td>61.57</td>
<td>0.9650</td>
<td>46.07</td>
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<tr>
<td>Ethyl alcohol</td>
<td>Sep</td>
<td>69.03</td>
<td>61.28</td>
<td>76.77</td>
<td>61.57</td>
<td>0.8312</td>
<td>46.07</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>Oct</td>
<td>64.64</td>
<td>58.13</td>
<td>71.16</td>
<td>61.57</td>
<td>0.7702</td>
<td>46.07</td>
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<tr>
<td>Ethyl alcohol</td>
<td>Nov</td>
<td>58.87</td>
<td>54.21</td>
<td>63.53</td>
<td>61.57</td>
<td>0.6327</td>
<td>46.07</td>
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<tr>
<td>Ethyl alcohol</td>
<td>Dec</td>
<td>54.98</td>
<td>51.51</td>
<td>58.44</td>
<td>61.57</td>
<td>0.5526</td>
<td>46.07</td>
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</tbody>
</table>
### Rim Seal Losses (lb):

<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal Factor A (lb-mole/yr)</td>
<td>1.6000</td>
<td>1.6000</td>
<td>1.6000</td>
<td>1.6000</td>
<td>1.6000</td>
<td>1.6000</td>
<td>1.6000</td>
<td>1.6000</td>
<td>1.6000</td>
<td>1.6000</td>
<td>1.6000</td>
<td>1.6000</td>
</tr>
<tr>
<td>Seal Factor B (lb-mole/yr (m³/h):n))</td>
<td>0.3000</td>
<td>0.3000</td>
<td>0.3000</td>
<td>0.3000</td>
<td>0.3000</td>
<td>0.3000</td>
<td>0.3000</td>
<td>0.3000</td>
<td>0.3000</td>
<td>0.3000</td>
<td>0.3000</td>
<td>0.3000</td>
</tr>
<tr>
<td>Vapor Value Factor</td>
<td>0.0096</td>
<td>0.0106</td>
<td>0.0115</td>
<td>0.0128</td>
<td>0.0146</td>
<td>0.0163</td>
<td>0.0174</td>
<td>0.0170</td>
<td>0.0156</td>
<td>0.0146</td>
<td>0.0134</td>
<td>0.0096</td>
</tr>
<tr>
<td>Vapor Pressure at Daily Average Liquid</td>
<td>0.5545</td>
<td>0.6131</td>
<td>0.6527</td>
<td>0.7350</td>
<td>0.8360</td>
<td>0.9304</td>
<td>0.9905</td>
<td>0.9892</td>
<td>0.9702</td>
<td>0.8637</td>
<td>0.6526</td>
<td>0.5545</td>
</tr>
<tr>
<td>Surface Temperature (°F)</td>
<td>60.00</td>
<td>60.00</td>
<td>60.00</td>
<td>60.00</td>
<td>60.00</td>
<td>60.00</td>
<td>60.00</td>
<td>60.00</td>
<td>60.00</td>
<td>60.00</td>
<td>60.00</td>
<td>60.00</td>
</tr>
<tr>
<td>Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed</td>
<td>36.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tank Diameter (ft)</td>
<td>32.0000</td>
<td>30.0000</td>
<td>30.0000</td>
<td>30.0000</td>
<td>30.0000</td>
<td>30.0000</td>
<td>30.0000</td>
<td>30.0000</td>
<td>30.0000</td>
<td>30.0000</td>
<td>30.0000</td>
<td>30.0000</td>
</tr>
<tr>
<td>Vapor Molecular Weight (lb/mole):</td>
<td>46.0700</td>
<td>46.0700</td>
<td>46.0700</td>
<td>46.0700</td>
<td>46.0700</td>
<td>46.0700</td>
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<td>46.0700</td>
<td>46.0700</td>
<td>46.0700</td>
<td>46.0700</td>
</tr>
<tr>
<td>Product Factor</td>
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<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

#### Total Losses (lb):

37.2986 38.5524 39.6284 41.2058 43.4179 45.5017 46.2802 46.2589 44.6352 41.3743 38.9780 37.2462
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-8887-12-0 (127,000 gal) - Internal Floating Roof Tank
Tracy, California

<table>
<thead>
<tr>
<th>Components</th>
<th>Rim Seal Loss</th>
<th>Withdrawal Loss</th>
<th>Deck Fitting Loss</th>
<th>Deck Seam Loss</th>
<th>Total Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>29.39</td>
<td>306.71</td>
<td>165.43</td>
<td>0.00</td>
<td>501.54</td>
</tr>
</tbody>
</table>
Identification

User Identification: N-8887-14-0 (381,000 gal)
City: Tracy
State: California
Company: Tracy Renewable Energy LLC
Type of Tank: Internal Floating Roof Tank
Description: 200 Proof Ethanol

Tank Dimensions

Diameter (ft): 52.00
Volume (gallons): 381,000.00
Turnovers: 10.98
Self Supp. Roof? (y/n): N
No. of Columns: 1.00
Eff. Col. Diam. (ft): 1.00

Paint Characteristics

Internal Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Rim-Seal System

Primary Seal: Mechanical Shoe
Secondary Seal: Shoe-mounted

Deck Characteristics

Deck Fitting Category: Typical
Deck Type: Welded

Deck Fitting/Status

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Hatch (24-in. Diam.) Unbolted Cover, Ungasketed</td>
<td>1</td>
</tr>
<tr>
<td>Automatic Gauge Float Well Unbolted Cover, Ungasketed</td>
<td>1</td>
</tr>
<tr>
<td>Column Well (24-in. Diam.) Built-Up Coll. Sliding Cover, Ungasketed</td>
<td>1</td>
</tr>
<tr>
<td>Ladder Well (36-in. Diam.) Sliding Cover, Ungasketed</td>
<td>1</td>
</tr>
<tr>
<td>Roof Leg or Hanger Well Adjustable</td>
<td>15</td>
</tr>
<tr>
<td>Sample Pipe or Well (24-in. Diam.) Slit Fabric Seal 10% Open</td>
<td>1</td>
</tr>
<tr>
<td>Vacuum Breaker (10-in. Diam.) Weighted Mech. Actuation, Gasket</td>
<td>1</td>
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</tbody>
</table>

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)
### Emissions Report - Detail Format

#### Liquid Contents of Storage Tank

**N-8887-14-0 (381,000 gal) - Internal Floating Roof Tank**  
**Tracy, California**

<table>
<thead>
<tr>
<th>Mixture/Component</th>
<th>Liquid Temperature (deg F)</th>
<th>Liquid Bulk Temp (deg F)</th>
<th>Vapor Pressure (psia)</th>
<th>Vapor Mol. Weight</th>
<th>Liquid Mol. Fract.</th>
<th>Vapor Mass Fract.</th>
<th>Basis for Vapor Pressure Calculations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>Jul 72.25</td>
<td>61.57</td>
<td>0.9906</td>
<td>N/A</td>
<td>N/A</td>
<td>46.07</td>
<td>46.07 Option 2: A=13.32, B=1718.21, C=237.52</td>
</tr>
</tbody>
</table>

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File: file:///C:/Program%20Files%20(x86)/Tanks409d/summarydisplay.htm  
6/12/2014
TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

N-8887-14-0 (381,000 gal) - Internal Floating Roof Tank
Tracy, California

<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rim Seal Losses (lb)</td>
<td>5.6538</td>
<td>1.6000</td>
<td>0.3000</td>
<td>0.0174</td>
<td>0.9906</td>
<td>52.0000</td>
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<td>1.0000</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seal Factor A (lb-mole/yr)</td>
<td>1.0000</td>
<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seal Factor B (lb-mole/ft-Yr (mPh)(^n))</td>
<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
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<td></td>
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<tr>
<td>Value of Vapor Pressure Function:</td>
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<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Vapor Pressure at Daily Average Liquid Surface Temperature (psia):</td>
<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
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<tr>
<td>Average Organic Liquid Density (lbsgal):</td>
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<td>46.0700</td>
<td>1.0000</td>
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<tr>
<td>Tank Diameter (ft):</td>
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<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
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<td>Withdrawal Losses (lb):</td>
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<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
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<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
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<td></td>
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<tr>
<td>Number of Columns:</td>
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<td>10.0000</td>
<td>180.00</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Effective Column Diameter (ft):</td>
<td>1.0000</td>
<td>180.00</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Not Throughput (gal/1000):</td>
<td>4,185,000.0000</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Shell Circumference Factor (ft/1000 sqft):</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Average Organic Liquid Density (lbsgal):</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tank Diameter (ft):</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dock Fitting Losses (lb):</td>
<td>20.7103</td>
<td>180.00</td>
<td>180.00</td>
<td>180.00</td>
<td>180.00</td>
<td>180.00</td>
<td>180.00</td>
<td>180.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value of Vapor Pressure Function:</td>
<td>20.7103</td>
<td>180.00</td>
<td>180.00</td>
<td>180.00</td>
<td>180.00</td>
<td>180.00</td>
<td>180.00</td>
<td>180.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Molecular Weight (lb/lb-mole):</td>
<td>46.0700</td>
<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Product Factor:</td>
<td>46.0700</td>
<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
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</tr>
<tr>
<td>Tot. Roof Fitting Loss Fact. (lb-mole/yr):</td>
<td>305.7000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dock Seam Losses (lb):</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dock Seam Length (ft):</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dock Seam Length Factor(ft/soft):</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tank Diameter (ft):</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dock Seam Length Factor(ft/soft):</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Vapor Molecular Weight (lb/lb-mole):</td>
<td>46.0700</td>
<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Factor:</td>
<td>46.0700</td>
<td>1.0000</td>
<td>4.1850</td>
<td>0.0015</td>
<td>6.6100</td>
<td>52.0000</td>
<td>46.0700</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Losses (lb):</td>
<td>44.5348</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td></td>
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</tbody>
</table>

TANKS 4.0.9d
Emissions Report - Detail Format

file:///C:/Program%20Files%20(x86)/Tanks409d/summarydisplay.htm
6/12/2014
Individual Tank Emission Totals

Emissions Report for: July

N-8887-14-0 (381,000 gal) - Internal Floating Roof Tank
Tracy, California

<table>
<thead>
<tr>
<th>Components</th>
<th>Losses (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td></td>
</tr>
<tr>
<td>Rim Seal Loss</td>
<td>5.56</td>
</tr>
<tr>
<td>Withdraw Loss</td>
<td>18.26</td>
</tr>
<tr>
<td>Deck Fitting Loss</td>
<td>20.71</td>
</tr>
<tr>
<td>Deck Seam Loss</td>
<td>0.00</td>
</tr>
<tr>
<td>Total Emissions</td>
<td>44.53</td>
</tr>
</tbody>
</table>
## TANKS 4.0.9d
### Emissions Report - Detail Format
#### Tank Identification and Physical Characteristics

<table>
<thead>
<tr>
<th>Identification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>User Identification:</strong></td>
<td>N-8887-14-0 (381,000 gal)</td>
</tr>
<tr>
<td><strong>City:</strong></td>
<td>Tracy</td>
</tr>
<tr>
<td><strong>State:</strong></td>
<td>California</td>
</tr>
<tr>
<td><strong>Company:</strong></td>
<td>Tracy Renewable Energy LLC</td>
</tr>
<tr>
<td><strong>Type of Tank:</strong></td>
<td>Internal Floating Roof Tank</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>200 Proof Ethanol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tank Dimensions</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diameter (ft):</strong></td>
<td>52.00</td>
</tr>
<tr>
<td><strong>Volume (gallons):</strong></td>
<td>381,000.00</td>
</tr>
<tr>
<td><strong>Turnovers:</strong></td>
<td>104.99</td>
</tr>
<tr>
<td><strong>Self Supp. Roof? (y/n):</strong></td>
<td>N</td>
</tr>
<tr>
<td><strong>No. of Columns:</strong></td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Eff. Col. Diam. (ft):</strong></td>
<td>1.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paint Characteristics</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal Shell Condition:</strong></td>
<td>Light Rust</td>
</tr>
<tr>
<td><strong>Shell Color/Shade:</strong></td>
<td>White/White</td>
</tr>
<tr>
<td><strong>Shell Condition:</strong></td>
<td>Good</td>
</tr>
<tr>
<td><strong>Roof Color/Shade:</strong></td>
<td>White/White</td>
</tr>
<tr>
<td><strong>Roof Condition:</strong></td>
<td>Good</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Rim-Seal System</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Seal:</strong></td>
<td>Mechanical Shoe</td>
</tr>
<tr>
<td><strong>Secondary Seal:</strong></td>
<td>Shoe-mounted</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Deck Characteristics</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deck Fitting Category:</strong></td>
<td>Typical</td>
</tr>
<tr>
<td><strong>Deck Type:</strong></td>
<td>Welded</td>
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</table>

<table>
<thead>
<tr>
<th>Deck Fitting/Status</th>
<th>Details</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Hatch (24-in. Diam./Unbolted Cover, Ungasketed)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Automatic Gauge Float Well/Unbolted Cover, Ungasketed</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Ungasketed</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Ladder Well (36-in. Diam.)/Sliding Cover, Ungasketed</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Roof Leg or Hanger Well/Adjustable</td>
<td></td>
<td>15</td>
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<tr>
<td>Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**Meteorological Data used in Emissions Calculations:** Stockton, California (Avg Atmospheric Pressure = 14.72 psia)
## N-8887-14-0 (381,000 gal) - Internal Floating Roof Tank

Tracy, California

<table>
<thead>
<tr>
<th>Mixture/Component</th>
<th>Month</th>
<th>Avg</th>
<th>Min</th>
<th>Max</th>
<th>Avg</th>
<th>Min</th>
<th>Max</th>
<th>Mol Basis for Vapor Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>Jan</td>
<td>55.08</td>
<td>51.49</td>
<td>58.67</td>
<td>61.57</td>
<td>0.5545</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Ethyl alcohol</td>
<td>Feb</td>
<td>57.96</td>
<td>53.17</td>
<td>62.75</td>
<td>61.57</td>
<td>0.6131</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>Mar</td>
<td>60.22</td>
<td>54.36</td>
<td>63.07</td>
<td>61.57</td>
<td>0.6627</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>Apr</td>
<td>63.26</td>
<td>55.98</td>
<td>70.54</td>
<td>61.57</td>
<td>0.7050</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>May</td>
<td>67.10</td>
<td>58.83</td>
<td>75.36</td>
<td>61.57</td>
<td>0.6350</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>Jun</td>
<td>70.33</td>
<td>61.45</td>
<td>79.22</td>
<td>61.57</td>
<td>0.9304</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Ethyl alcohol</td>
<td>Jul</td>
<td>72.25</td>
<td>63.02</td>
<td>81.48</td>
<td>61.57</td>
<td>0.9906</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Ethyl alcohol</td>
<td>Aug</td>
<td>71.45</td>
<td>52.54</td>
<td>80.06</td>
<td>61.57</td>
<td>0.9650</td>
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<tr>
<td>Ethyl alcohol</td>
<td>Sep</td>
<td>69.03</td>
<td>61.29</td>
<td>76.77</td>
<td>61.57</td>
<td>0.8312</td>
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<td>Ethyl alcohol</td>
<td>Oct</td>
<td>64.64</td>
<td>58.13</td>
<td>71.16</td>
<td>61.57</td>
<td>0.7702</td>
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<tr>
<td>Ethyl alcohol</td>
<td>Nov</td>
<td>58.87</td>
<td>54.21</td>
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<td>61.57</td>
<td>0.6327</td>
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<td>Ethyl alcohol</td>
<td>Dec</td>
<td>54.98</td>
<td>51.51</td>
<td>58.44</td>
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<td>0.5526</td>
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</table>
### Rim Seal Losses (lb):

<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracy, California</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Vacuum Breaker (10-in. Diam., Weighted Mech. Actuation, Ungasketed)
- Weight: 6.20
- Quantity: 1
- KFb(m=0.01): 1,20
- Losses (lb): 0.94

#### Access Hatch (24-in. Diam., Unbolted Cover, Ungasketed)
- Weight: 1
- Quantity: 36.00

### Rim Seal Losses (lb):

<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracy, California</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Sample Pipe or Well (24-in. Diam., Slit Fabric Seal 10% Open)
- Weight: 1
- Quantity: 12.00

#### Ladder Well (36-in. Diam., Sliding Cover, Ungasketed)
- Weight: 1
- Quantity: 47.00

#### Column Well (24-in. Diam., Built-Up Coll. Sliding Cover, Ungasketed)
- Weight: 1
- Quantity: 76.00

#### Column Well (24-in. Diam., Sliding Cover, Ungasketed)
- Weight: 1
- Quantity: 76.00

#### Column Well (24-in. Diam., Sliding Cover, Ungasketed)
- Weight: 1
- Quantity: 7.93

#### Sample Pipe or Well (24-in. Diam., Slit Fabric Seal 10% Open)
- Weight: 12.00

#### Vacuum Breaker (10-in. Diam., Weighted Mech. Actuation, Ungasketed)
- Weight: 1
- Quantity: 6.20

### Total Losses (lb):

<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracy, California</td>
<td>29.072</td>
<td>32.5886</td>
<td>31.9176</td>
<td>33.8640</td>
<td>36.5964</td>
<td>39.1683</td>
<td>40.8187</td>
<td>40.1157</td>
<td>38.0985</td>
<td>34.1729</td>
<td>21.1132</td>
<td>28.9748</td>
</tr>
</tbody>
</table>

### Roof Fitting Loss Factors

#### Total Roof Fitting Loss Factors (lb-mole/yr):
- Weight: 309.7000
- Quantity: 0.0000
- KFb(m=0.01): 0.0000

#### Deck Seam Losses (lb):
- Weight: 0.0000
- Quantity: 0.0000

#### Deck Seam Length (ft):
- Weight: 0.0000
- Quantity: 0.0000

#### Deck Seam Loss per Unit Length Factor (b-mole/yr):
- Weight: 0.0000
- Quantity: 0.0000

#### Roofing:
- Weight: 309.7000
- Quantity: 0.0000

#### Roofing:
- Weight: 309.7000
- Quantity: 0.0000

#### Roofing:
- Weight: 309.7000
- Quantity: 0.0000

#### Roofing:
- Weight: 309.7000
- Quantity: 0.0000

#### Roofing:
- Weight: 309.7000
- Quantity: 0.0000

#### Total Roof Fitting Loss Factors (lb-mole):
- Weight: 309.7000
- Quantity: 0.0000
- KFb(m=0.01): 0.0000

### TANKS 4.0.9d Emissions Report - Detail Format

#### Detail Calculations (AP-42)

N-8887-14-0 (381,000 gal) - Internal Floating Roof Tank

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**Emissions Report - Detail Format**

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file:///C:/Program%20Files%20(x86)/Tanks409d/summarydisplay.htm

6/12/2014
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-8887-14-0 (381,000 gal) - Internal Floating Roof Tank
Tracy, California

<table>
<thead>
<tr>
<th>Components</th>
<th>Losses (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rim Seal Loss</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>50.94</td>
</tr>
</tbody>
</table>