

# San Joaquin Valley Air Pollution Control District

FACILITY: S-4214-0-0

EXPIRATION DATE: 09/30/2013

## FACILITY-WIDE REQUIREMENTS

---

1. 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 (11/15/01) or Rule 8011 (11/15/01). [District Rules 8021 and 8011]
2. 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 (11/15/01) or Rule 8011 (11/15/01). [District Rules 8041 and 8011]
3. 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 (11/15/01) or Rule 8011 (11/15/01). [District Rules 8051 and 8011]
4. 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 (11/15/01) or Rule 8011 (11/15/01). [District Rules 8061 and 8011]
5. Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (11/15/01) or Rule 8011 (11/15/01). [District Rules 8071 and 8011]
6. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District NSR Rule and Rule 4455, 5.1.4]
7. The operator shall not use any component that leaks in excess of the allowable leak standards of Rule 4455, or is found to be in violation of the provisions specified in Section 5.1.3. 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]
8. 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]
9. The operator shall be in violation of Rule 4455 if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1]

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: PIXLEY ETHANOL LLC  
Location: 11813 ROAD 120, PIXLEY, CA 93256  
S-4214-0-0 : Feb 24 2009 2:13PM -- EDGEHILR

10. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates that one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of Rule 4455 if the leaking components are repaired as soon as practicable but not later than the time frame specified in Rule 4455. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1]
11. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in Rule 4455 shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2]
12. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of Rule 4455 regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in Rule 4455. [District Rule 4455, 5.1.3.2.3]
13. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and Pressure Relief Devices (PRDs) in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using a portable analyzer. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3. [District Rule 4455, 5.2.1 & 5.2.2]
14. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. Components shall be inspected using EPA Method 21. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7]
15. 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. 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]
16. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of 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 (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10]
17. 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]
18. 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]
19. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. 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 5.3.2 and 5.3.3]
20. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4]

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

21. If the leak has been minimized but the leak still exceeds the applicable leak standards of Rule 4455, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5]
22. If the leaking component is an essential component or a 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 the leak still exceeds any of the applicable leak standards of Rule 4455, the essential component or critical component shall be repaired or replaced 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]
23. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7]
24. 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]
25. 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 system approved by the APCO 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. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2]
26. The operator shall keep a copy of the operator management plan 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 & 6.1.4]
27. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1]

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

28. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3]
29. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, 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. [District Rule 4455, 6.3.1]
30. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2]
31. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4]
32. Measurements of gaseous leak concentrations shall be conducted according to US 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 US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1]
33. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4455, 6.4.2]
34. The percent by volume liquid evaporated at 1500C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3]
35. Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of 40 CFR 60.482-1 through 60.482-10 or 40 CFR 60.480(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1(a)]
36. Compliance with 40 CFR 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485. [40 CFR 60.482-1(b)]
37. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in 40 CFR 60.484. [40 CFR 60.482-1(c)]
38. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1(c)]
39. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)]
40. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 500 ppmv or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b), and District Rule 2201]
41. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)]

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

42. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)]
43. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e), and District Rule 2201]
44. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)]
45. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)]
46. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)]
47. Unless exempt under 40 CFR 60.482-3, each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR 60.482-3(h) and (i). The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. Each compressor shall be operated and equipped as specified in 40 CFR 60.482-3(b)(1), (2), or (3). [40 CFR 60.482-3(a), (b), and (c)]
48. If a barrier fluid system is used for a compressor, the barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system or both. Each sensor shall be checked daily or shall be equipped with an audible alarm. The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier system, or both based on the established criterion, a leak is detected. [40 CFR 60.482-3(d), (e), and (f)]
49. If a barrier fluid system is used for a compressor, detected leaks shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3(g)]
50. Any compressor that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-3(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3(i)(1) and (2). [40 CFR 60.482-3(i), and District Rule 2201]
51. Any existing reciprocating compressor in a process unit which becomes an affected facility under the provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3(a), (b), (c), (d), (e), and (h). [40 CFR 60.482-3(j)]
52. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a), and District Rule 2201]

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

53. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b), and District Rule 2201]
54. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)]
55. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)]
56. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)]
57. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)]
58. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)]
59. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)]
60. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)]
61. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7(a) and (b), and District Rule 2201]
62. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)]
63. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)]
64. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 100 ppmv above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f), and District Rule 2201]

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

65. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)]
66. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)]
67. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 100 ppmv or greater for valves and connectors and 500 ppmv or greater for pumps and compressor seals, is measured. [40 CFR 60.482-8(a) and (b); and District Rule 2201]
68. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)]
- For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)]
70. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)]
71. Owners or operators of control devices used to comply with the provisions of Subpart VV shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)]
72. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart VV shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g), and District Rule 2201] [District Rule]
73. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)]
74. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)]

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

75. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)]
76. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)]
77. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)]
78. Closed vent systems and control devices used to comply with provisions Subpart VV shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)]
79. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.483-1 and 60.483-2]
80. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart VV. [40 CFR 60.484(a)]
81. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)]
82. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppmv of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 100 ppmv methane or n-hexane for valves and connectors and 500 ppmv methane or n-hexane for pumps and compressor seals. [40 CFR 60.485(b); and District Rule 2201]
83. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 100 ppmv methane for valves and connectors and 500 ppmv methane for pumps and compressor seals for determining compliance. [40 CFR 60.485(c); and District Rule 2201]
84. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)]

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

85. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H<sub>2</sub>O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)]
86. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)]
87. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)]
88. An owner or operator of more than one affected facility subject to the provisions Subpart VV may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)]
89. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)]
90. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) "Above 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals; 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c); and District Rule 2201]
91. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)]
92. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart VV; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with §60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), §60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)]

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

93. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)]
94. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)]
95. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)]
96. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)]
97. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)]
98. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart VV. [40 CFR 60.486(k)]
99. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)]
100. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)]
101. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart VV except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)]
102. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)]
103. Permittee shall comply with all notification and recordkeeping requirements of 40 CFR Part 60.7. [40 CFR 60.7]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-1-2

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

CORN RECEIVING AND STORAGE OPERATION WITH 21' DIA X 42' HIGH (271,873 GALLONS) CORN STORAGE BIN AND 75' X 105' (3,468,032 GALLONS) CORN STORAGE SILO VENTED TO 5,000 ACFM DUST COLLECTOR WITH DUST COLLECTOR FINES DISCHARGED TO TRANSFER CONVEYOR FEEDING BLENDER (CONVEYORS AND BLENDER INCLUDED IN ATC S-4214-4)

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. The baghouse and bin vent filters shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
4. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District NSR Rule]
5. The pressure differential gauge reading range shall be established per manufacturer's recommendation at the time of start-up inspection. [District Rule 2201]
6. The baghouse and bin vent filters cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
7. For each type of baghouse and bin vent filter, a spare set of bags shall be maintained on the premises at all times. [District Rule 2201]
8. Material removed from the dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District NSR Rule]
9. Visible emissions from conveyor at the corn day bin and from baghouse serving the corn receiving operation shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201]
10. The maximum quantity of corn received and conveyed to the corn day bin shall not exceed 1558 ton-corn/day nor 550,000 ton-corn/yr. [District Rule 2201]
11. Controlled PM10 emissions from corn conveyor to corn day bin, and served by a baghouse, shall not exceed 0.0 lb-PM10/ton-grain. [District Rule 2201]
12. Daily records of corn received and conveyed to corn day bin and storage silo shall be maintained. [District Rules 1070 and 2201]
13. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-2-2

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

HAMMERMILL #1 VENTED TO 7,200 ACFM DUST COLLECTOR

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Inlet conveyor to the hammermill shall be fully enclosed and sealed to the hammermill. [District Rule 2201]
4. Discharge conveyors from hammermill to slurry tank (S-4214-4) shall be fully enclosed and sealed to the hammermill and the slurry tank cover [District Rule 2201]
5. Visible emissions from conveyors in the hammermill operation and from baghouse serving the hammermill operation shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201]
6. The maximum throughput in hammermills S-4214-2-0 and '3-0 shall not exceed 1,558 tons-corn/day nor 550,000 tons-corn/yr. [District Rule 2201]
7. PM10 emissions from the hammermills baghouse shall not exceed 0.006 lb-PM10/ton processed through the hammermills. [District Rule 2201]
8. Daily records of corn processed at the hammermill operation shall be maintained. [District Rules 1070 and 2201]
9. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-4-5

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

187,800 GALLON COOK WATER TANK, 75 HP BLENDER, 5 HP GROUND CORN TRANSFER CONVEYOR AND 24,200 GALLON SLURRY TANK BOTH VENTED TO THERMAL OXIDIZER LISTED ON S-4214-8

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Blender shall vent only to thermal oxidizer S-4214-8 and operate only when slurry tank is in operation. [District Rule 2201]
4. Slurry tank shall vent only to thermal oxidizer listed on S-4214-8. [District Rule 2201]
5. Maximum VOC emissions from thermal oxidizer (S-4214-8) shall not exceed 13.5 lb/day nor 4763 lb/yr. [District Rule 2201]
6. Facility-wide fugitive VOC emissions rate were calculated using the SOCOMI Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
7. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-5-5

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

27,800 GALLON YEAST TANK VENTED TO THERMAL OXIDIZER LISTED ON S-4214-8

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Yeast tank shall vent only to thermal oxidizer listed on S-4214-8. [District Rule 2201]
4. Maximum VOC emissions from thermal oxidizer (S-4214-8) shall not exceed 13.5 lb/day nor 4763 lb/yr. [District Rule 2201]
5. Facility-wide fugitive VOC emissions rate were calculated using the SOCOMI Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
6. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-6-4

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

60,200 GALLON LIQUEFACTION TANK #1 VENTED TO THERMAL OXIDIZER LISTED ON S-4214-8

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Vapor control system shall be operated under vacuum. [District Rule 2201]
4. Liquefaction tank #1 shall vent only to thermal oxidizer listed on S-4214-8. [District Rule 2201]
5. There shall be no particulate matter emissions from this unit. [District Rules 2201 and 4101]
6. Maximum VOC emissions from thermal oxidizer (S-4214-8) shall not exceed 13.5 lb/day nor 4763 lb/yr. [District Rule 2201]
7. Facility-wide fugitive VOC emissions rate were calculated using the SOCFI Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
8. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-7-4

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

60,200 GALLON LIQUEFACTION TANK #2 VENTED TO THERMAL OXIDIZER LISTED ON S-4214-8

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Vapor control system shall be operated under vacuum. [District Rule 2201]
4. Liquefaction tank #2 shall vent only to thermal oxidizer listed on S-4214-8. [District Rule 2201]
5. There shall be no particulate matter emissions from this unit. [District Rules 2201 and 4101]
6. Maximum VOC emissions from thermal oxidizer (S-4214-8) shall not exceed 13.5 lb/day nor 4763 lb/yr. [District Rule 2201]
7. Facility-wide fugitive VOC emissions rate were calculated using the SOCFI Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
8. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4214-8-6

EXPIRATION DATE: 09/30/2013

## EQUIPMENT DESCRIPTION:

FERMENTATION OPERATION WITH 734,400 GALLON FERMENTER #1, 734,400 GALLON FERMENTOR #2, 734,400 GALLON FERMENTOR #3, AND 734,400 GALLON FERMENTOR #4, CO2 SCRUBBER, AND 15 MMBTU/HR REGENERATIVE THERMAL OXIDIZER

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Maximum VOC emissions from thermal oxidizer (S-4214-8) shall not exceed 13.5 lb/day nor 4763 lb/yr. [District Rule 2201]
5. VOC control efficiency of combined fermentation scrubber and regenerative thermal oxidizer shall not be less than 99.65%. [District Rule 2201]
6. Facility-wide fugitive VOC emissions rate were calculated using the SOCOMI Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
7. Initial source testing to quantify VOC emissions from thermal oxidizer, expressed as lb-VOC/gal-ethanol produced, and overall (fermentation scrubber and thermal oxidizer) VOC control efficiency shall be conducted within 60 days after initial start-up with equipment in operation. [District Rules 1081 and 2201]
8. Source testing to determine the rate of VOC from the outlet of the regenerative thermal oxidizer and , expressed as lb-VOC/gal-ethanol produced, shall be conducted at least once every twelve (12) months. [District Rules 1081 and 2201]
9. 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]
10. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
11. During source testing, permittee shall maintain record of ethanol production rate measured in gal-ethanol/hour. [District Rules 1070 and 2201]
12. The fermentation scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201]
13. The water flow rate through the fermentation wet scrubber shall not be less than 38 gal/minute, during operation. [District Rule 2201]
14. The permittee shall monitor and record the water flow rate through the fermentation scrubber at least once every day. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

15. If the water flow rate through the fermentation scrubber is less than 38 gal/minute, the permittee shall correct the water flow rate to exceed 38 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the fermentation scrubber continues to be less than 38 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201]
16. The permittee shall maintain records of (1) the date of water flow rate measurements, (2) the water flow rate through the primary fermentation scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 38 gal/minute limit. [District Rule 2201]
17. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-7-4

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

60,200 GALLON LIQUEFACTION TANK #2 VENTED TO THERMAL OXIDIZER LISTED ON S-4214-8

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Vapor control system shall be operated under vacuum. [District Rule 2201]
4. Liquefaction tank #2 shall vent only to thermal oxidizer listed on S-4214-8. [District Rule 2201]
5. There shall be no particulate matter emissions from this unit. [District Rules 2201 and 4101]
6. Maximum VOC emissions from thermal oxidizer (S-4214-8) shall not exceed 13.5 lb/day nor 4763 lb/yr. [District Rule 2201]
7. Facility-wide fugitive VOC emissions rate were calculated using the SOCFI Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
8. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-4214-14-1

EXPIRATION DATE: 09/30/2013

## EQUIPMENT DESCRIPTION:

165,000 GALLON INTERNAL FLOATING ROOF 190 PROOF ETHANOL STORAGE TANK

## PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. The maximum throughput of 190-proof ethanol at the 190-proof ethanol storage tank shall not exceed 150,685 gallons of 190-proof ethanol/day. [District Rule 2201]
4. Daily VOC emissions from the 165,000 gallon internal floating roof 190-proof ethanol storage tank shall not exceed 1.6 lb-VOC/day. [District Rule 2201]
5. The True Vapor Pressure (TVP) of liquid introduced, placed, processed or stored in the tank shall be less than 2.0 psi. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
6. The TVP of organic liquids, including light crude and petroleum distillates, shall be measured using Reid vapor pressure ASTM Method No. D-323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100°F, TVP may be determined by Reid Vapor pressure at 100°F and ARB approved calculations. Organic liquids listed in Rule 4451 (Amended December 17, 1992), Table 1 shall be deemed to be in compliance with the appropriate vapor pressure limits for the material, provided actual operating temperature does not exceed the corresponding maximum temperature listed. [District Rule 4451, 6.3.3]
7. Facility-wide fugitive VOC emissions rate were calculated using the SOCMIA Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
8. Daily and annual records of quantity of 190-proof ethanol throughput at the 190-proof ethanol storage tank shall be maintained. [District Rules 1070 and 2201]
9. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, and 40 CFR 60.112b(a)(i)]
10. The internal floating roof tank shall be 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. The lower seal may be vapor-mounted, but both must be continuous. [40 CFR 60.112b(a)(ii-B)]
11. 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)(iii)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [District Rule 4623, and 40 CFR 60.112b(a)(iv)]
13. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, and 40 CFR 60.112b(a)(v)]
14. Rim vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, and 40 CFR 60.112b(a)(vi)]
15. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(vii)]
16. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, and 40 CFR 60.112b(a)(viii)]
17. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(ix)]
18. After installation of the internal floating roof tank, the permittee shall visually inspect the vessel as specified in paragraph 40 CFR 60.113b(a)(4) of this section at least every 5 years or Visually inspect the vessel as specified in paragraph 40 CFR 60.113b(a)(2) of this section. [40 CFR 60.113b(a)(3)]
19. The permittee shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs 40 CFR 60.113b(a)(1) and 40 CFR 60.113b(a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling. [40 CFR 60.113b(a)(5)]
20. The permittee shall submit to the APCO a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and 40 CFR 60.113b(a)(1). This report shall be an attachment to the notification required by 40 CFR 60.7(a)(3). [40 CFR 60.115b(a)(1)]
21. The permittee shall keep a record of each inspection performed as required by 40 CFR 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [40 CFR 60.115b(a)(2)]
22. If any of the conditions described in 40 CFR 60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. [40 CFR 60.115b(a)(3)]
23. After each inspection required by 40 CFR 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR 60.112b(a)(1) or 40 CFR 60.113b(a)(3) and list each repair made. [40 CFR 60.115b(a)(4)]
24. The permittee of each storage vessel as specified in §60.110b(a) 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)]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. The permittee of each storage vessel either with a design capacity greater than or equal to 151 m<sup>3</sup> (equivalent to 39,890 gal) storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa (equivalent to 0.5 psi) or with a design capacity greater than or equal to 75 m<sup>3</sup> (equivalent to 19,813 gal) but less than 151 m<sup>3</sup> (equivalent to 39,890 gal) storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa (equivalent to 2.2 psi) shall maintain a record of the Volatile Organic Liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. [40 CFR 60.116b(c)]
26. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]
27. 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]
28. 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]
29. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
30. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
31. 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]
32. The dual wiper seal 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]
33. The geometry of the dual wiper seal 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]
34. 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]
35. 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]
36. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]
37. 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]
38. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 100 ppmv for valves and connectors or 500 ppmv for pumps and compressor seals above background is a violation of this permit and Rule 2201 and shall be reported as a deviation. [District Rules 2201, 4623]
39. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623]
40. The permittee shall visually inspect, through the manholes, roof hatches, or other openings on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

41. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. [District Rule 4623]
42. Permittee shall maintain accurate record of each organic liquid stored in each tank, including its storage temperature, TVP and API gravity. [District Rule 4623]
43. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623]
44. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]
45. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-27-0

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

320 HP DIESEL-FIRED CUMMINS MODEL CFP11E-F10 EMERGENCY IC ENGINE FIREWATER PUMP

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201]
5. The exhaust shall vent vertically upward without any obstruction. The engine shall not be equipped with a fixed rain cap. [District Rule 4102]  
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]
7. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115]
8. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702 and 17 CCR 93115]
9. Operation of this engine for all purposes combined shall not exceed 11.8 hours per day. [District Rule 2201 and 4102]
10. This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702 and 17 CCR 93115]
11. Emissions from this IC engine shall not exceed any of the following limits: 3.60 g-NOx/bhp-hr, 0.746 g-CO/bhp-hr, or 0.24 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]
12. Emissions from this IC engine shall not exceed 0.091 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]
13. The permittee 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, and the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-26-0

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

59,438 GPM ANAEROBIC DIGESTOR VENTED TO 2.4 MMBTU/HR ENCLOSED FLARE

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Anaerobic digester shall vent only to flare. [District Rule 2201]
4. The True Vapor Pressure (TVP) of liquid introduced, placed, processed or stored in anaerobic digester shall be less than 0.5 psi. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
5. The TVP of organic liquids, including light crude and petroleum distillates, shall be measured using Reid vapor pressure ASTM Method No. D-323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100°F, TVP may be determined by Reid Vapor pressure at 100°F and ARB approved calculations. Organic liquids listed in Rule 4451 (Amended December 17, 1992), Table 1 shall be deemed to be in compliance with the appropriate vapor pressure limits for the material, provided actual operating temperature does not exceed the corresponding maximum temperature listed. [District Rule 4451, 6.3.3]
6. Flare pilot flame shall be lit whenever vapors are discharged from anaerobic digester. [District Rule 2201]
7. Pilot fuel for the flare shall only be PUC grade natural gas. [District Rule 2201]
8. VOC emissions from anaerobic digester shall not exceed 0.5 lb/day nor 177 lb/yr. [District Rule 2201]
9. Annual emissions from flare shall not exceed 1468 lb/yr NO<sub>x</sub>, 60 lb/yr SO<sub>x</sub>, 535 lb/yr PM<sub>10</sub>, 7594 lb/yr CO, nor 1286 lb/yr VOC. [District Rule 2201]
10. Emissions rates from flare serving the anaerobic digester shall not exceed any of the following limits: 0.068 lb-NO<sub>x</sub>/MMBtu, 0.00286 lb-SO<sub>x</sub>/MMBtu, 0.026 lb-PM<sub>10</sub>/MMBtu, 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District Rule 2201]
11. Facility-wide fugitive VOC emissions rate were calculated using the SOCMIA Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
12. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-20-1

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

30,000 GALLON BIOMETHANATOR TANK #1 VENTED TO 2.4 MMBTU/HR COANDA EFFECT FLARE (SHARED WITH BIOMETHANATOR TANK #2 S-4214-21)

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Biomethanator tank shall vent only to flare. [District Rule 2201]
4. The True Vapor Pressure (TVP) of liquid introduced, placed, processed or stored in biomethanator tank shall be less than 2.2 psi. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
5. The TVP of organic liquids, including light crude and petroleum distillates, shall be measured using Reid vapor pressure ASTM Method No. D-323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100°F, TVP may be determined by Reid Vapor pressure at 100°F and ARB approved calculations. Organic liquids listed in Rule 4451 (Amended December 17, 1992), Table 1 shall be deemed to be in compliance with the appropriate vapor pressure limits for the material, provided actual operating temperature does not exceed the corresponding maximum temperature listed. [District Rule 4451, 6.3.3]
6. Flare pilot flame shall be lit whenever vapors are discharged from biomethanator tanks. [District Rule 2201]
7. Pilot fuel for the flare shall only be PUC grade natural gas. [District Rule 2201]
8. Emissions rates from the flare serving the denaturated ethanol loading rack shall not exceed any of the following limits: 0.068 lb-NO<sub>x</sub>/MMBtu, 0.00286 lb-SO<sub>x</sub>/MMBtu, 0.026 lb-PM<sub>10</sub>/MMBtu, 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District Rule 2201]
9. Facility-wide fugitive VOC emissions rate were calculated using the SOCM I Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
10. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-21-1

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

30,000 GALLON BIOMETHANATOR TANK #2 VENTED TO 2.4 MMBTU/HR COANDA EFFECT FLARE (S-4214-20)

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Biomethanator tank shall vent only to flare S-4214-20. [District Rule 2201]
4. The True Vapor Pressure (TVP) of liquid introduced, placed, processed or stored in biomethanator tank shall be less than 2.2 psi. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
5. The TVP of organic liquids, including light crude and petroleum distillates, shall be measured using Reid vapor pressure ASTM Method No. D-323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100°F, TVP may be determined by Reid Vapor pressure at 100°F and ARB approved calculations. Organic liquids listed in Rule 4451 (Amended December 17, 1992), Table 1 shall be deemed to be in compliance with the appropriate vapor pressure limits for the material, provided actual operating temperature does not exceed the corresponding maximum temperature listed. [District Rule 4451, 6.3.3]
6. VOC emissions from tank shall not exceed 0.5 lb/day. [District Rule 2201]
7. Facility-wide fugitive VOC emissions rate were calculated using the SOCFI Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
8. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-19-5

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

WET CAKE HANDLING, STORAGE, AND LOADOUT, 66,700 GALLON WHOLE STILLAGE TANK, 185,100 GALLON THIN STILLAGE TANK, AND 66,700 GALLON SYRUP TANK EACH VENTED TO THERMAL OXIDIZER LISTED ON S-4214-8, 2,200 GALLON FIXED ROOF CENTRATE TANK VENTED TO THERMAL OXIDIZER LISTED ON S-4214-8, THREE 150 HP CENTRIFUGES, ONE 1ST EFFECT EVAPORATOR, AND ONE 2ND EFFECT EVAPORATOR

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Vapor control system shall be operated under vacuum. [District Rule 2201]
4. Whole stillage, thin stillage, syrup tank and centrate tank shall vent only to thermal oxidizer listed on S-4214-8. [District Rule 2201]
5. Equipment includes whole stillage tank, centrifuge(s), centrate tank vented to RTO (S-4214-8-0), thin stillage tank, evaporator(s), syrup tank, wet cake storage pad, and wet cake truck loadout station. [District Rule 2201]
6. Maximum VOC emissions from thermal oxidizer (S-4214-8) shall not exceed 13.5 lb/day nor 4763 lb/yr. [District Rule 2201]
7. VOC emissions rate from the wet cake storage area shall not exceed 1.9 lb/day nor 694 lb/yr. [District Rule 2201]
8. Wet distiller grain storage shall be enclosed and vented to District-approved odor control device if odors are detectable at or beyond the property boundary. [District Rule 4102]
9. VOC content of wet cake shall not exceed 0.21% by weight as determined by EPA Test Method 413.2, or 418.1 and/or if necessary, EPA Test Method 8240. Hydrocarbons heavier than C14, as determined by Test Method ASTM E 260-85, may be excluded from the total concentration.. [District Rule 2201]
10. PM10 emissions from loadout vehicle transport of wet cake shall not exceed 0.011 lb PM10/loadout vehicle mile traveled. [District Rule 2201]
11. PM10 emissions from wet cake loadout shall not exceed 0 lb/day. [District Rule 2201]
12. Wet cake shall be stored at facility no longer than 24 hours before being trucked offsite. [District Rules 2201 & 4102]
13. Maximum VOC emissions from centrate tank solely served by fermentation wet scrubber and thermal oxidizer (S-4214-8), shall not exceed 13.5 lb/day nor 4763 lb/yr. [District Rule 2201]
14. Maximum quantity of VOCs in whole stillage, thin stillage, and syrup tanks shall not exceed 300 ppm as determined by EPA Test Method 413.2, or 418.1 and/or if necessary, EPA Test Method 8240. Hydrocarbons heavier than C14, as determined by Test Method ASTM E 260-85, may be excluded from the total concentration. [District Rule 2201]
15. VOC emissions from whole stillage tank, thin stillage tank, and syrup tank shall not exceed 0.5 lb/day nor 177 lb/yr. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

16. Facility-wide fugitive VOC emissions rate were calculated using the SOCOMI Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
17. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-26-0

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

59,438 GPM ANAEROBIC DIGESTOR VENTED TO 2.4 MMBTU/HR ENCLOSED FLARE

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Anaerobic digester shall vent only to flare. [District Rule 2201]
4. The True Vapor Pressure (TVP) of liquid introduced, placed, processed or stored in anaerobic digester shall be less than 0.5 psi. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
5. The TVP of organic liquids, including light crude and petroleum distillates, shall be measured using Reid vapor pressure ASTM Method No. D-323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100°F, TVP may be determined by Reid Vapor pressure at 100°F and ARB approved calculations. Organic liquids listed in Rule 4451 (Amended December 17, 1992), Table 1 shall be deemed to be in compliance with the appropriate vapor pressure limits for the material, provided actual operating temperature does not exceed the corresponding maximum temperature listed. [District Rule 4451, 6.3.3]
6. Flare pilot flame shall be lit whenever vapors are discharged from anaerobic digester. [District Rule 2201]
7. Pilot fuel for the flare shall only be PUC grade natural gas. [District Rule 2201]
8. VOC emissions from anaerobic digester shall not exceed 0.5 lb/day nor 177 lb/yr. [District Rule 2201]
9. Annual emissions from flare shall not exceed 1468 lb/yr NO<sub>x</sub>, 60 lb/yr SO<sub>x</sub>, 535 lb/yr PM<sub>10</sub>, 7594 lb/yr CO, nor 1286 lb/yr VOC. [District Rule 2201]
10. Emissions rates from flare serving the anaerobic digester shall not exceed any of the following limits: 0.068 lb-NO<sub>x</sub>/MMBtu, 0.00286 lb-SO<sub>x</sub>/MMBtu, 0.026 lb-PM<sub>10</sub>/MMBtu, 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District Rule 2201]
11. Facility-wide fugitive VOC emissions rate were calculated using the SO<sub>2</sub>MI Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
12. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-20-1

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

30,000 GALLON BIOMETHANATOR TANK #1 VENTED TO 2.4 MMBTU/HR COANDA EFFECT FLARE (SHARED WITH BIOMETHANATOR TANK #2 S-4214-21)

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Biomethanator tank shall vent only to flare. [District Rule 2201]
4. The True Vapor Pressure (TVP) of liquid introduced, placed, processed or stored in biomethanator tank shall be less than 2.2 psi. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
5. The TVP of organic liquids, including light crude and petroleum distillates, shall be measured using Reid vapor pressure ASTM Method No. D-323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100°F, TVP may be determined by Reid Vapor pressure at 100°F and ARB approved calculations. Organic liquids listed in Rule 4451 (Amended December 17, 1992), Table 1 shall be deemed to be in compliance with the appropriate vapor pressure limits for the material, provided actual operating temperature does not exceed the corresponding maximum temperature listed. [District Rule 4451, 6.3.3]
6. Flare pilot flame shall be lit whenever vapors are discharged from biomethanator tanks. [District Rule 2201]
7. Pilot fuel for the flare shall only be PUC grade natural gas. [District Rule 2201]
8. Emissions rates from the flare serving the denaturated ethanol loading rack shall not exceed any of the following limits: 0.068 lb-NO<sub>x</sub>/MMBtu, 0.00286 lb-SO<sub>x</sub>/MMBtu, 0.026 lb-PM<sub>10</sub>/MMBtu, 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District Rule 2201]
9. Facility-wide fugitive VOC emissions rate were calculated using the SOCM I Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
10. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-4214-21-1

**EXPIRATION DATE:** 09/30/2013

**EQUIPMENT DESCRIPTION:**

30,000 GALLON BIOMETHANATOR TANK #2 VENTED TO 2.4 MMBTU/HR COANDA EFFECT FLARE (S-4214-20)

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Biomethanator tank shall vent only to flare S-4214-20. [District Rule 2201]
4. The True Vapor Pressure (TVP) of liquid introduced, placed, processed or stored in biomethanator tank shall be less than 2.2 psi. [District Rules 2201 and 4623, and 40 CFR 60.110b(b)]
5. The TVP of organic liquids, including light crude and petroleum distillates, shall be measured using Reid vapor pressure ASTM Method No. D-323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100°F, TVP may be determined by Reid Vapor pressure at 100°F and ARB approved calculations. Organic liquids listed in Rule 4451 (Amended December 17, 1992), Table 1 shall be deemed to be in compliance with the appropriate vapor pressure limits for the material, provided actual operating temperature does not exceed the corresponding maximum temperature listed. [District Rule 4451, 6.3.3]
6. VOC emissions from tank shall not exceed 0.5 lb/day. [District Rule 2201]
7. Facility-wide fugitive VOC emissions rate were calculated using the SOCFI Average factors in Table 2-1 of USEPA's Protocol for Equipment Emission Estimates - EPA-453/R-95-017. Controlled fugitive emissions are obtained using the LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON from the total number of components in the liquid and vapor control equipment shall not exceed 10.8 lb/day. [District Rule 2201]
8. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070]

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