PERMIT UNIT: S-6971-12-1 **EXPIRATION DATE:** 05/31/2018

EQUIPMENT DESCRIPTION:

WATER TREATMENT OPERATION WITH PERMIT EXEMPT SURGE VESSEL AND 1100 GALLON DISSOLVED AIR FLOATATION (DAF) TANK, FOLLOWED BY THREE 3760 GALLON AEROBIC DIGESTER BATCH REACTORS (BCRS), AND A 1100 GALLON SECONDARY DAF UNIT SERVED BY A CARBON CANNISTER SYSTEM

PERMIT UNIT REQUIREMENTS

- 1. VOC concentration of the exhaust from the water treatment system served by carbon adsorption shall not exceed 65 ppmv, as methane. [District Rule 2201]
- 2. VOC emission rate from this unit shall not exceed 4.6 lb/day based on component count and emission factors from EPA document Protocol for Equipment Leak Emission Rates, Table 2-1, SOCMI Average Emissions Factors with LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON (88% light liquid valves, 75% light liquid pump and compressor seals (100% if seal-less compressors), 93% connectors, 100% open ended lines, and 92% pressure relief valves, 100% sampling connections). [District Rule 2201]
- 3. A minimum of two carbon canisters which are connected in series shall be utilized. [District Rule 2201]
- 4. Sampling ports adequate for extraction of grab samples, measurement of gas flow rate, and use of an FID, PID, or other District-approved VOC detection device shall be provided for both the influent and the effluent gas streams. [District Rule 2201]
- 5. Ongoing compliance with VOC emission rate and control efficiency requirements shall be demonstrated by sampling both the influent and the effluent gas streams with an FID, PID, or other District-approved VOC detection device.

 [District Rule 2201]
- 6. Sampling to demonstrate compliant performance of carbon canisters shall be performed at least once per week while activated carbon canisters are on-line. [District Rule 2201]
- 7. The wastewater treatment system shall be maintained in proper operating condition at all times. [District Rule 2201]
- 8. The carbon canisters removed from the system shall be sealed gas tight (as defined by Rule 4623). [District Rule 2201]
- 9. Activated carbon canister effluent gas flow rate shall not exceed 500 scfm. [District Rule 2201]
- 10. Either the VOC control efficiency shall not be less than 95%, or the total uncontrolled VOC emission rate shall not exceed 2 pounds in any one day. [District Rule 2201]
- 11. Activated carbon canisters may be taken off-line after uncontrolled VOC emissions from the activated carbon canisters does not exceed 2.0 lb/day, as demonstrated by five consecutive weekly samples using a FID, PID, or other District-approved VOC detection device. Once taken off-line, permittee shall conduct monthly sampling with a FID, PID, or other District-approved VOC detection device to ensure uncontrolled VOC emissions do not exceed 2.0 lb/day. If uncontrolled VOC emissions exceed 2.0 lb/day, the activated carbon canisters shall be placed back on-line as soon as possible. [District Rule 2201]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-12-1: May 7 2015 10:33AM - DIAZN

- 12. 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]
- 13. 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]
- 14. 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]
- 15. 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]
- 16. 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]
- 17. 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]
- 18. 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]
- 19. 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]
- 20. 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]
- 21. 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]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-12-1 : May 7 2015 10:33AM -- DIAZN

- 22. 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]
- 23. 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]
- 24. 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]
- 25. 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]
- 26. 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]
- 27. 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]
- 28. 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]
- 29. 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 Rule4455, 5.3.7]
- 30. 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]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-12-1: May 7 2015 10:33AM - DIAZN

- 31. 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]
- 32. 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]
- 33. 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]
- 34. 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]
- 35. 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]
- 36. 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 Rule4455 6.3.2]
- 37. 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]
- 38. 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]
- 39. 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]
- 40. The percent by volume liquid evaporated at 1500C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3]

Location: S-6971-12-1 : May 7 2015 10:33AM -- DIAZN

- 41. Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of 40 CFR 60.482-1a through 60.482-10a or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1a(a)]
- 42. Valves in gas/vapor service and in light liquid service shall be monitored for the first time within 30 days after the initial startup date for the process unit as required by 40 CFR 60.482-2a and 40 CFR 60.482-7a. [40 CFR 60.482-2a (a) and 40 CFR 60.482-7 a(a)]
- 43. Compliance with 40 CFR 60.482-1a to 60.482-10a will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485a. [40 CFR 60.482-1a(b)]
- 44. An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, and 60.482-10a as provided in 40 CFR 60.484a. [40 CFR 60.482-1a(c)(1)]
- 45. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2a, 60.482-3a, 60.482-5a, 60.482-6a, 60.482-7a, 60.482-8a, or 60.482-10a, an owner or operator shall comply with the requirements of that determination. [40 CFR 60.482-1a(c)(2)]
- 46. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)]
- 47. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 500 ppmv or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b), and District Rule 2201]
- 48. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)]
- 49. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)]
- 50. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e), and District Rule 2201]
- 51. 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 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)]
- 52. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if:

 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)]
- 53. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2a(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)]

- 54. Unless exempt under 40 CFR 60.482-3a, each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR 60.482-3a(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 60.482-3a(b)(1), (2), or (3). [40 CFR 60.482-3a(a), (b), and (c)]
- 55. If a barrier fluid system is used for a compressor, the barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system or both. Each sensor shall be checked daily or shall be equipped with an audible alarm. The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. If the sensor indicates failure of the seal system, the barrier system, or both based on the established criterion, a leak is detected. [40 CFR 60.482-3a(d), (e), and (f)]
- 56. If a barrier fluid system is used for a compressor, detected leaks shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3a(g)]
- 57. Any compressor that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 40 CFR 60.482-3a(a) through (h) if the compressor meets the requirements specified in 40 CFR 60.482-3a(i)(1) and (2). [40 CFR 60.482-3a(i), and District Rule 2201]
- 58. 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 60.482a(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 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.482-3a(j)]
- 59. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a), and District Rule 2201]
- 60. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b), and District Rule 2201]
- 61. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)]
- 62. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(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 60.482-9a. [40 CFR 60.482-4a(d)]
- 63. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)]
- 64. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-12-1: May 7 2015 10:33AM - DIAZN

- 65. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)]
- 66. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)]
- 67. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)]
- 68. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, 40 CFR 60.482-1a(c), and 40 CFR 60.482-1a(f). A leak is detected if an instrument reading of 100 ppmv or greater is measured. [40 CFR 60.482-7a(a) and (b), and District Rule 2201]
- 69. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)(1) and (2)
- 70. 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 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)]
- 71. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 100 ppmv above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f), and District Rule 2201]
- 72. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)]
- 73. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)]
- 74. 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 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 100 ppmv or greater for valves and connectors and 500 ppmv or greater for pumps and compressor seals, is measured. [40 CFR 60.482-8a(a) and (b); and District Rule 2201]

Facility Name: CRIMSON RENEWABLE ENERGY, LP 17731 MILLUX RD, BAKERSFIELD, CA Location: S-6971-12-1 : May 7 2015 10:33AM -- DIAZN

- 75. 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 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-2a(c)(2), and 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d)]
- 76. 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 60.482-10a(b)]
- 77. 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 60.482-10a(c)]
- 78. Owners or operators of control devices shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)]
- 79. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 100 ppmy for valves and connectors or 500 ppmy for pumps and compressor seals above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g), and District Rule 2201]
- 80. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)]
- 81. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)]
- 82. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a (j)(1) and (j)(2). [40 CFR 60.482-10a(j)]
- 83. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(1)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)]
- 84. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40] CFR 60.482-10a(1)]
- 85. Closed vent systems and control devices shall be operated at all times when emissions may be vented to them. [40] CFR 60.482-10a(m)]
- 86. 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 60.483-1a and 60.483-2a. [40 CFR 60.483-1a and 60.483-2a]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-12-1: May 7 2015 10:33AM – DIAZN

- 87. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart VVa. [40 CFR 60.484a(a)]
- 88. The owner or operator shall determine compliance with the standards in 40 CFR 60.482a, 60.483a, and 60.484a 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 60.485a(b); and District Rule 2201]
- 89. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 100 ppmv methane for valves and connectors and 500 ppmv methane for pumps and compressor seals for determining compliance. [40 CFR 60.485a(c); and District Rule 2201]
- 90. 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 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)]
- 91. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 øC (1.2 in. H2O at 68 degrees F). Standard reference texts or ASTM D2879-83, 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 60.485a(e)]
- 92. An owner or operator of more than one affected facility subject to the provisions Subpart VVa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)]
- 93. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)]

- 94. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 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 60.485a(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 60.486a(c); and District Rule 2201]
- 95. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)]
- 96. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-10a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart VVa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (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 60.486a(e)]
- 97. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2a(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 60.486a(f)]
- 98. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)]
- 99. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)]
- 100. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)]
- 101. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-12-1: May 7 2015 10:33AM – DIAZN

- 102. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart VVa. [40 CFR 60.486a(k)]
- 103. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), 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 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)]
- 104. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)]
- 105. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)]
- 106. Operator shall notify the Administrator of the actual date of initial startup postmarked within 15 days after such date. [40 CFR 60.7 (a)(3]
- 107. Operator shall notify the Administrator of the date construction is commenced postmarked no later than 30 days after such date. Notification shall include the Operating Plan. [40 CFR 60.113b(c)(1) and 60.7 (a)(1]
- 108. Records of the cumulative running time and the measured influent and effluent VOC concentrations shall be maintained. [District Rule 2201]
- 109. Permittee shall comply with all notification and recordkeeping requirements of 40 CFR Part 60.7. [40 CFR 60.7]
- 110. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated as required by this permit. [District Rule 2201]
- 111. All records required by Rule 4455 shall be retained for a minimum period of 5 years and shall be made available to the APCO, ARB and US EPA upon request. [District Rule 4455]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-12-1 : May 7 2015 10:33AM - DIAZN

PERMIT UNIT: S-6971-13-1 **EXPIRATION DATE:** 05/31/2018

EQUIPMENT DESCRIPTION:

80-HP 1,000 GPM SINGLE CELL COOLING TOWER WITH MIST ELIMINATOR

PERMIT UNIT REQUIREMENTS

- 1. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 4102]
- 2. Cooling tower drift, i.e. the fraction of circulating water entrained in the air stream, shall not exceed 0.005%. [District Rule 2201]
- 3. Total dissolved solids (TDS) in cooling tower water shall not exceed 40.0 g/l. [District Rule 2201]
- 4. Recirculating water flow rate shall not exceed 1,600 gal/min. [District Rule 2201]
- 5. Compliance with TDS limit shall be determined by cooling water sample analysis by independent laboratory within 60 days of initial operation and monthly thereafter. [District Rule 1081]
- 6. Records of the cooling tower recirculating water flow rate and cooling tower water TDS shall be kept at the facility and made readily available for District inspection upon request for 5 years. [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.

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-13-1: May 7 2015 10:33AM -- DIAZN

PERMIT UNIT: S-6971-15-0 **EXPIRATION DATE:** 05/31/2018

EQUIPMENT DESCRIPTION:

32.7 MMBTU/HR NATURAL GAS-FIRED CLEAVER BROOKS MODEL CBEX-700-800-200ST BOILER WITH SELECTIVE CATALYTIC REDUCTION (SCR)

PERMIT UNIT REQUIREMENTS

- 1. The unit shall be fired solely on PUC-quality natural gas. [District Rules 2201, 2410, 4320]
- 2. Ammonia (NH3) emissions shall not exceed 10 ppmvd @ 3% O2 over a 24-hour average period. [District Rule 2201]
- 3. Except during startup and shutdown, emissions from the natural gas-fired unit shall not exceed any of the following limits: 5 ppmvd NOx @ 3% O2 or 0.0061 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.002 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0054 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
- 4. Daily and annual emissions on NOx shall not exceed 6.3 lb/day nor 2,300 lb/yr. [District Rules 2201, 4305, 4306, and 4320]
- 5. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320]
- 6. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306 and 4320]
- 7. This unit shall be tested for compliance with the NOx, CO, and ammonia emissions limits at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320]
- 8. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320]
- 9. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]
- 10. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
- 11. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]

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

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-15-0 : May 7 2015 10:33AM - DIAZN

- 12. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320]
- 13. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) EPA Method 19, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, stack gas moisture content EPA Method 4, stack gas velocities EPA Method 2, and fuel gas sulfur content -EPA method 11 or method 15. [District Rules 1081, 4305, 4306, 4320, and 4351]
- 14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320]
- 15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320]
- 16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320]
- 17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320]
- 18. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320]

PERMIT UNIT: S-6971-16-0 EXPIRATION DATE: 05/31/2018

EQUIPMENT DESCRIPTION:

142,800 GALLON BIODIESEL SETTLING TANK W/TVR SHARED WITH PERMIT -1 (PF-4)

PERMIT UNIT REQUIREMENTS

- 1. This tank shall be connected to the gas blanket and vapor control system identified on permit S-6971-1. [District Rules 2201 & 4623]
- 2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
- 3. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, 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 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]
- 4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 5. Fugitive VOC emissions rate from components affixed to the tank and in the vapor line from the tank to the vapor control system trunk line shall be calculated using EPA document Protocol for Equipment Leak Emission Rates, Table 2-1, SOCMI Average Emissions Factors with LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON (88% light liquid valves, 75% light liquid pump and compressor seals, 93% connectors, 0% open ended lines, and 92% pressure relief valves). Permittee shall maintain with the permit an accurate fugitive component counts of vapor and condensate handling equipment and resulting emissions calculated using above specified leak rates and control efficiencies. [District Rule 2201]
- 6. Fugitive VOC emission rate from tank and from all components affixed to the tank in the vapor line from the tank to the vapor control system trunk line shall not exceed 0.9 lb/day. [District Rule 2201]
- 7. If any of the tank components are found to be leaking above background (>100 ppmv for valves and connectors and 500 ppmv for pump and compressor seals), as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21), operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 & 4623]
- 8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
- 9. Any component found to be leaking by the operator with a reading > 10,000 ppmv, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-16-0: May 7 2015 10:33AM -- DIAZN

- 10. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623]
- 11. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623]
- 12. Upon detection of a gas leak, defined as a VOC concentration >100 ppmv for valves and connectors and >500 ppmv for pump and compressor seals as measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rules 2201 and 4623]
- 13. Leaking components, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, and that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rules 2201 and 4623]
- 14. If a component type for a given tank is found to leak, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623]
- 15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
- 16. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623]
- 17. Permittee shall comply with all applicable tank degassing and interior cleaning requirements specified in Section 5.7.5 of Rule 4623. [District Rule 4623]
- 18. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-16-0: May 7 2015 10:33AM - DIAZN

PERMIT UNIT: S-6971-17-0 **EXPIRATION DATE:** 05/31/2018

EQUIPMENT DESCRIPTION:

4,000 GALLON GLYCERIN SETTLING TANK W/TVR SHARED WITH PERMIT -1 (V-560)

PERMIT UNIT REQUIREMENTS

- 1. This tank shall be connected to the gas blanket and vapor control system identified on permit S-6971-1. [District Rules 2201 & 4623]
- 2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
- 3. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, 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 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]
- 4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 5. Fugitive VOC emissions rate from components affixed to the tank and in the vapor line from the tank to the vapor control system trunk line shall be calculated using EPA document Protocol for Equipment Leak Emission Rates, Table 2-1, SOCMI Average Emissions Factors with LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON (88% light liquid valves, 75% light liquid pump and compressor seals, 93% connectors, 0% open ended lines, and 92% pressure relief valves). Permittee shall maintain with the permit an accurate fugitive component counts of vapor and condensate handling equipment and resulting emissions calculated using above specified leak rates and control efficiencies. [District Rule 2201]
- 6. Fugitive VOC emission rate from tank and from all components affixed to the tank in the vapor line from the tank to the vapor control system trunk line shall not exceed 1.2 lb/day. [District Rule 2201]
- 7. If any of the tank components are found to be leaking above background (>100 ppmv for valves and connectors and 500 ppmv for pump and compressor seals), as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21), operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 & 4623]
- 8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
- 9. Any component found to be leaking by the operator with a reading > 10,000 ppmv, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-17-0: May 7 2015 10:33AM - DIAZN

- 10. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623]
- 11. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623]
- 12. Upon detection of a gas leak, defined as a VOC concentration >100 ppmv for valves and connectors and >500 ppmv for pump and compressor seals as measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rules 2201 and 4623]
- 13. Leaking components, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, and that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rules 2201 and 4623]
- 14. If a component type for a given tank is found to leak, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623]
- 15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
- 16. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623]
- 17. Permittee shall comply with all applicable tank degassing and interior cleaning requirements specified in Section 5.7.5 of Rule 4623. [District Rule 4623]
- 18. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-17-0: May 7 2015 10:33AM - DIAZN

PERMIT UNIT: S-6971-18-0 EXPIRATION DATE: 05/31/2018

EQUIPMENT DESCRIPTION:

2,500 GALLON OIL SEPARATION TANK W/ TVR SHARED WITH PERMIT -1 (V-401)

PERMIT UNIT REQUIREMENTS

- 1. This tank shall be connected to the gas blanket and vapor control system identified on permit S-6971-1. [District Rules 2201 & 4623]
- 2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
- 3. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, 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 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]
- 4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 5. Fugitive VOC emissions rate from components affixed to the tank and in the vapor line from the tank to the vapor control system trunk line shall be calculated using EPA document Protocol for Equipment Leak Emission Rates, Table 2-1, SOCMI Average Emissions Factors with LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON (88% light liquid valves, 75% light liquid pump and compressor seals, 93% connectors, 0% open ended lines, and 92% pressure relief valves). Permittee shall maintain with the permit an accurate fugitive component counts of vapor and condensate handling equipment and resulting emissions calculated using above specified leak rates and control efficiencies. [District Rule 2201]
- 6. Fugitive VOC emission rate from tank and from all components affixed to the tank in the vapor line from the tank to the vapor control system trunk line shall not exceed 1.5 lb/day. [District Rule 2201]
- 7. If any of the tank components are found to be leaking above background (>100 ppmv for valves and connectors and 500 ppmv for pump and compressor seals), as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21), operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 & 4623]
- 8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
- 9. Any component found to be leaking by the operator with a reading > 10,000 ppmv, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-18-0: May 7 2015 10:33AM - DIAZN

- 10. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623]
- 11. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623]
- 12. Upon detection of a gas leak, defined as a VOC concentration >100 ppmv for valves and connectors and >500 ppmv for pump and compressor seals as measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rules 2201 and 4623]
- 13. Leaking components, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, and that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rules 2201 and 4623]
- 14. If a component type for a given tank is found to leak, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623]
- 15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
- 16. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623]
- 17. Permittee shall comply with all applicable tank degassing and interior cleaning requirements specified in Section 5.7.5 of Rule 4623. [District Rule 4623]
- 18. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

PERMIT UNIT: S-6971-19-0 **EXPIRATION DATE:** 05/31/2018

EQUIPMENT DESCRIPTION:

15,000 GALLON POST TE SURGE TANK W/TVR SHARED WITH PERMIT -1 (V-360)

PERMIT UNIT REQUIREMENTS

- 1. This tank shall be connected to the gas blanket and vapor control system identified on permit S-6971-1. [District Rules 2201 & 4623]
- 2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
- 3. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, 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 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]
- 4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 5. Fugitive VOC emissions rate from components affixed to the tank and in the vapor line from the tank to the vapor control system trunk line shall be calculated using EPA document Protocol for Equipment Leak Emission Rates, Table 2-1, SOCMI Average Emissions Factors with LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON (88% light liquid valves, 75% light liquid pump and compressor seals, 93% connectors, 0% open ended lines, and 92% pressure relief valves). Permittee shall maintain with the permit an accurate fugitive component counts of vapor and condensate handling equipment and resulting emissions calculated using above specified leak rates and control efficiencies. [District Rule 2201]
- 6. Fugitive VOC emission rate from tank and from all components affixed to the tank in the vapor line from the tank to the vapor control system trunk line shall not exceed 1.4 lb/day. [District Rule 2201]
- 7. If any of the tank components are found to be leaking above background (>100 ppmv for valves and connectors and 500 ppmv for pump and compressor seals), as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21), operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 & 4623]
- 8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
- 9. Any component found to be leaking by the operator with a reading > 10,000 ppmv, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-19-0: May 7 2015 10:33AM - DIAZN

- 10. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623]
- 11. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623]
- 12. Upon detection of a gas leak, defined as a VOC concentration >100 ppmv for valves and connectors and >500 ppmv for pump and compressor seals as measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rules 2201 and 4623]
- 13. Leaking components, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, and that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rules 2201 and 4623]
- 14. If a component type for a given tank is found to leak, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623]
- 15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
- 16. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623]
- 17. Permittee shall comply with all applicable tank degassing and interior cleaning requirements specified in Section 5.7.5 of Rule 4623. [District Rule 4623]
- 18. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

PERMIT UNIT: S-6971-20-0 **EXPIRATION DATE:** 05/31/2018

EQUIPMENT DESCRIPTION:

6,000 GALLON NEUTRALIZATION TANK W/TVR SHARED WITH PERMIT -1 (V-460)

PERMIT UNIT REQUIREMENTS

- 1. This tank shall be connected to the gas blanket and vapor control system identified on permit S-6971-1. [District Rules 2201 & 4623]
- 2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
- 3. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, 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 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]
- 4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 5. Fugitive VOC emissions rate from components affixed to the tank and in the vapor line from the tank to the vapor control system trunk line shall be calculated using EPA document Protocol for Equipment Leak Emission Rates, Table 2-1, SOCMI Average Emissions Factors with LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON (88% light liquid valves, 75% light liquid pump and compressor seals, 93% connectors, 0% open ended lines, and 92% pressure relief valves). Permittee shall maintain with the permit an accurate fugitive component counts of vapor and condensate handling equipment and resulting emissions calculated using above specified leak rates and control efficiencies. [District Rule 2201]
- 6. Fugitive VOC emission rate from tank and from all components affixed to the tank in the vapor line from the tank to the vapor control system trunk line shall not exceed 4.1 lb/day. [District Rule 2201]
- 7. If any of the tank components are found to be leaking above background (>100 ppmv for valves and connectors and 500 ppmv for pump and compressor seals), as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21), operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 & 4623]
- 8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
- 9. Any component found to be leaking by the operator with a reading > 10,000 ppmv, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-20-0 : May 7 2015 10:33AM -- DIAZN

- 10. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623]
- 11. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623]
- 12. Upon detection of a gas leak, defined as a VOC concentration >100 ppmv for valves and connectors and >500 ppmv for pump and compressor seals as measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rules 2201 and 4623]
- 13. Leaking components, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, and that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rules 2201 and 4623]
- 14. If a component type for a given tank is found to leak, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623]
- 15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
- 16. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623]
- 17. Permittee shall comply with all applicable tank degassing and interior cleaning requirements specified in Section 5.7.5 of Rule 4623. [District Rule 4623]
- 18. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

PERMIT UNIT: S-6971-21-0 **EXPIRATION DATE:** 05/31/2018

EQUIPMENT DESCRIPTION:

6,000 GALLON NEUTRALIZATION TANK W/TVR SHARED WITH PERMIT -1 (V-470)

PERMIT UNIT REQUIREMENTS

- 1. This tank shall be connected to the gas blanket and vapor control system identified on permit S-6971-1. [District Rules 2201 & 4623]
- 2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623]
- 3. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, 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 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]
- 4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 5. Fugitive VOC emissions rate from components affixed to the tank and in the vapor line from the tank to the vapor control system trunk line shall be calculated using EPA document Protocol for Equipment Leak Emission Rates, Table 2-1, SOCMI Average Emissions Factors with LDAR control efficiencies provided in Table 5-2 of EPA-453/R-95-017 for HON (88% light liquid valves, 75% light liquid pump and compressor seals, 93% connectors, 0% open ended lines, and 92% pressure relief valves). Permittee shall maintain with the permit an accurate fugitive component counts of vapor and condensate handling equipment and resulting emissions calculated using above specified leak rates and control efficiencies. [District Rule 2201]
- 6. Fugitive VOC emission rate from tank and from all components affixed to the tank in the vapor line from the tank to the vapor control system trunk line shall not exceed 4.6 lb/day. [District Rule 2201]
- 7. If any of the tank components are found to be leaking above background (>100 ppmv for valves and connectors and 500 ppmv for pump and compressor seals), as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21), operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 & 4623]
- 8. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
- 9. Any component found to be leaking by the operator with a reading > 10,000 ppmv, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]

Facility Name: CRIMSON RENEWABLE ENERGY, LP Location: 17731 MILLUX RD,BAKERSFIELD, CA S-6971-21-0: May 7 2015 10:33AM -- DIAZN

- 10. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 2201 and 4623]
- 11. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623]
- 12. Upon detection of a gas leak, defined as a VOC concentration >100 ppmv for valves and connectors and >500 ppmv for pump and compressor seals as measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rules 2201 and 4623]
- 13. Leaking components, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, and that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rules 2201 and 4623]
- 14. If a component type for a given tank is found to leak, with a reading > 10,000 ppmv as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21, during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rules 2201 and 4623]
- 15. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
- 16. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623]
- 17. Permittee shall comply with all applicable tank degassing and interior cleaning requirements specified in Section 5.7.5 of Rule 4623. [District Rule 4623]
- 18. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]