



DEC 1 8 2015

Norbert Buss The Termo Company PO Box 2767 Long Beach, CA 93801-2767

RE: **Notice of Final Action - Authority to Construct**

> Facility Number: C-8578 **Project Number: C-1152548**

Dear Mr. Buss:

The Air Pollution Control Officer has issued the Authority to Construct permits to The Termo Company for three flares and six storage tanks, at Fresno County. Enclosed are the Authority to Construct permits and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the Authority to Construct permits was published on 11/6/15. The District's analysis of the proposal was also sent to CARB on 11/3/15. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

Arnaud Marjollet

Director of Permit Services

AM:dbt

Enclosures

Mike Tollstrup, CARB (w/enclosure) via email CC:

Seyed Sadredin

Executive Director/Air Pollution Control Officer





PERMIT NO: C-8578-2-1

ISSUANCE DATE: 12/10/2015

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS:

PO BOX 2767

LONG BEACH, CA 90801

LOCATION:

LIGHT OIL PRODUCTION FRESNO COUNTY, CA

SECTION: NW4 TOWNSHIP: 16S RANGE: 18E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 400 BBL FIXED ROOF CRUDE OIL STORAGE TANK #1 SERVED BY VAPOR RECOVERY SYSTEM LISTED UNDER C-8578-1 (WIGGINS LEASE): ADD ONE 4.9 MMBTU/HR COANDA-EFFECT FLARE SERVING VAPOR CONTROL SYSTEM, ADD TANK CLEANING CONDITIONS AND LIST C-8578-1'S VAPOR CONTROL SYSTEM EQUIPMENT ON THIS PERMIT

CONDITIONS

- ATCs C-8578-1-0, '5-0 and '6-0 shall be canceled upon implementation of this ATC. [District Rule 2201]
- The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1/4 or 5% opacity, [District Rules 2201 and 4101]
- The following permit units shall be tied into the shared vapor recovery system C-8578-2, '3, '4, '5, '6, '15, '16 and '17. [District Rule 2201]
- Flare shall be equipped with operational produced gas volume flow meter. [District Rule 2201]
- Measured heating value and quantity of flared gas shall be used to determine compliance with heat input limit. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all taws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seved Sadredin, Executive Director / APCO

- 8. The flare outlet shall be equipped with an automatic ignition system, or shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 2201]
- 9. The sulfur compound concentration of gas combusted shall not exceed 5 gr S/100 sef. [District Rule 2201]
- 10. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NOx: 0,068 lb/MMBtu; PMI0: 0.003 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201]
- 11. The permittee shall measure sulfur content of gas incinerated in flare within 60 days of startup, [District Rules 2201 and 4801]
- 12. The permittee shall conduct quarterly sampling of the sulfur content of the gas flared. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. [District Rule 2201]
- 13. The sulfur content of the gas being combusted shall be determined using ASTM methods D1072, D3031, D4084, D3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. The sulfur content of flared gas shall be measured within one day of restarting the unit if the unit has not been in use for more than 7 days. [District Rules 1081 and 2201]
- 14. Permittee shall keep accurate records of annual throughput, material usage, or other information necessary to demonstrate that facility emissions are less than 10 tons NOx/yr and 10 tons VOC/yr for exemption from Rule 4311. [District Rule 4311]
- 15. Permittee shall keep accurate daily records of flare gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rules 2201 and 4311]
- 16. This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- 17. This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and 4623]
- 18. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 19. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
- 20. Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]
- 21. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 22. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 23. VOC fugitive emissions from this tank and tank vapor control system including vapor control system trunk line not exceed 2.2 lb/day. [District Rule 2201]
- 24. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 25. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]

- 26. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4409]
- 27. 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 OMP. [District Rule 4409]
- 28. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 29. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmy, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 30. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 31. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 32. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
- 33. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
- 34. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time the tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
- 35. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]

- 36. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 37. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
- 38. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
- 39. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
- 40. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
- 41. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
- 42. During sludge removal from a tank containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
- 43. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
- 44. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
- 45. 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 Rules 4409 and 4623]





PERMIT NO: C-8578-3-1

ISSUANCE DATE: 12/10/2015

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS:

PO BOX 2767

LONG BEACH, CA 90801

LOCATION:

LIGHT OIL PRODUCTION FRESNO COUNTY, CA

SECTION: NW4 TOWNSHIP: 16S RANGE: 18E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 400 BBL FIXED ROOF CRUDE OIL STORAGE TANK #2 SERVED BY VAPOR RECOVERY SYSTEM LISTED UNDER C-8578-1 (WIGGINS LEASE): ADD TANK CLEANING CONDITIONS AND CHANGE NUMBER OF THE PERMIT LISTING THE VAPOR CONTROL SYSTEM TO C-8578-2

CONDITIONS

- The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and
- Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Seved Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

Central Regional Office 💌 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

- 7. Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]
- 8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 9. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 10. VOC emissions from the components associated with this tank up to the vapor recovery system trunk line shall not exceed 0.3 lb/day. [District Rule 2201]
- 11. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 12. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]
- 13. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4409]
- 14. 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 OMP. [District Rule 4409]
- 15. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 16. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the 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) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 17. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 18. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 19. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
- 20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]

- 21. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time the tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
- 22. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
- 23. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 24. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
- 25. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
- 26. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
- 27. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
- 28. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
- 29. During sludge removal from a tank containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
- 30. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
- 31. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
- 32. 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 Rules 4409 and 4623]





PERMIT NO: C-8578-4-1

ISSUANCE DATE: 12/10/2015

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS:

PO BOX 2767

LONG BEACH, CA 90801

LOCATION:

LIGHT OIL PRODUCTION FRESNO COUNTY, CA

SECTION: NW4 TOWNSHIP: 16S RANGE: 18E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 500 BBL FIXED ROOF WASH TANK SERVED BY VAPOR RECOVERY SYSTEM LISTED UNDER C-8578-1 (WIGGINS LEASE): ADD TANK CLEANING CONDITIONS AND CHANGE NUMBER OF THE PERMIT LISTING THE VAPOR CONTROL SYSTEM TO C-8578-2

CONDITIONS

- The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. | District Rule
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and
- Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

- 7. Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]
- 8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 9. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 10. VOC emissions from the components associated with this tank up to the vapor recovery system trunk line shall not exceed 0.3 lb/day. [District Rule 2201]
- 11. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 12. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]
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- 14. 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 OMP. [District Rule 4409]
- 15. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 16. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the 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) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 17. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 18. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 19. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
- 20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]

- 21. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time the tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
- 22. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
- 23. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 24. To facilitate connection to an external ΛPCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
- 25. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
- 26. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
- 27. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
- 28. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
- 29. During sludge removal from a tank containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
- 30. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
- 31. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
- 32. 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 Rules 4409 and 4623]





AUTHORITY TO CONSTRUCT

PERMIT NO: C-8578-8-1

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS:

PO BOX 2767

FO BOX 2101

LONG BEACH, CA 90801

LOCATION:

LIGHT OIL PRODUCTION FRESNO COUNTY, CA

SECTION: SW18 TOWNSHIP: 17S RANGE: 19E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 400 BBL FIXED ROOF CRUDE OIL STORAGE TANK #1 SERVED BY VAPOR RECOVERY SYSTEM LISTED UNDER C-8578-7 (TORRES LEASE): ADD ONE 4.9 MMBTU/HR COANDA-EFFECT FLARE SERVING VAPOR CONTROL SYSTEM, ADD TANK CLEANING CONDITIONS AND LIST C-8578-7'S VAPOR CONTROL SYSTEM EQUIPMENT ON THIS PERMIT

CONDITIONS

- 1. ATCs C-8578-7-0, '11-0 and '12-0 shall be canceled upon implementation of this ATC. [District Rule 2201]
- 2. The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
- 3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 4. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1/4 or 5% opacity, [District Rules 2201 and 4101]
- 5. The following permit units shall be tied into the shared vapor recovery system C-8578-8, '9, '10 and '11. [District Rule 2201]
- 6. Flare shall be equipped with operational produced gas volume flow meter. [District Rule 2201]
- 7. Measured heating value and quantity of flared gas shall be used to determine compliance with heat input limit. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquín Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

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- 8. The flare outlet shall be equipped with an automatic ignition system, or shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 2201]
- 9. The sulfur compound concentration of gas combusted shall not exceed 5 gr S/100 scf. [District Rule 2201]
- 10. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NOx: 0,068 lb/MMBtu; PMI0: 0.003 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201]
- 11. The permittee shall measure sulfur content of gas incinerated in flare within 60 days of startup. [District Rules 2201 and 4801]
- 12. The permittee shall conduct quarterly sampling of the sulfur content of the gas flared. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. [District Rule 2201]
- 13. The sulfur content of the gas being combusted shall be determined using ASTM methods D1072, D3031, D4084, D3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. The sulfur content of flared gas shall be measured within one day of restarting the unit if the unit has not been in use for more than 7 days. [District Rules 1081 and 2201]
- 14. Permittee shall keep accurate records of annual throughput, material usage, or other information necessary to demonstrate that facility emissions are less than 10 tons NOx/yr and 10 tons VOC/yr for exemption from Rule 4311. [District Rule 4311]
- 15. Permittee shall keep accurate daily records of flare gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rules 2201 and 4311]
- 16. This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- 17. This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and 4623]
- 18. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 19. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
- 20. Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]
- 21. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 22. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 23. VOC fugitive emissions from this tank and tank vapor control system including vapor control system trunk line not exceed 2.2 lb/day. [District Rule 2201]
- 24. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 25. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]

- 26. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4409]
- 27. 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 OMP. [District Rule 4409]
- 28. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 29. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the 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) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 30. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 31. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 32. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
- 33. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
- 34. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time the tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
- 35. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]

- 36. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 37. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
- 38. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
- 39. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
- 40. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
- 41. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
- 42. During sludge removal from a tank containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
- 43. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
- 44. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
- 45. 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 Rules 4409 and 4623]





AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS: PO BOX 2767

LONG BEACH, CA 90801

LOCATION:LIGHT OIL PRODUCTION FRESNO COUNTY, CA

SECTION: SW18 TOWNSHIP: 17S RANGE: 19E

EQUIPMENT DESCRIPTION:

PERMIT NO: C-8578-9-1

MODIFICATION OF 400 BBL FIXED ROOF CRUDE OIL STORAGE TANK #2 SERVED BY VAPOR RECOVERY SYSTEM LISTED UNDER C-8578-8 (TORRES LEASE): ADD TANK CLEANING CONDITIONS AND CHANGE NUMBER OF THE PERMIT LISTING THE VAPOR CONTROL SYSTEM TO C-8578-8

CONDITIONS

- 1. The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
- 2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 3. This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- 4. This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and 4623]
- 5. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 6. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

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- 7. Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]
- 8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 9. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 10. VOC emissions from the components associated with this tank up to the vapor recovery system trunk line shall not exceed 0.3 lb/day. [District Rule 2201]
- 11. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 12. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]
- 13. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4409]
- 14. 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 OMP. [District Rule 4409]
- 15. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 16. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the 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) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 17. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 18. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 19. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
- 20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]

- 21. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time the tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
- 22. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
- 23. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 24. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
- 25. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
- 26. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
- 27. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
- 28. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
- 29. During sludge removal from a tank containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
- 30. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
- 31. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
- 32. 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 Rules 4409 and 4623]





ISSUANCE DATE: 12/10/2015 PERMIT NO: C-8578-10-1

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY **MAILING ADDRESS:** PO BOX 2767

LONG BEACH, CA 90801

LOCATION: LIGHT OIL PRODUCTION FRESNO COUNTY, CA

SECTION: SW18 TOWNSHIP: 17S RANGE: 19E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 500 BBL FIXED ROOF WASH TANK SERVED BY VAPOR RECOVERY SYSTEM LISTED UNDER C-8578-8 (TORRES LEASE): ADD TANK CLEANING CONDITIONS AND CHANGE NUMBER OF THE PERMIT LISTING THE VAPOR CONTROL SYSTEM TO C-8578-8

CONDITIONS

- The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 46231
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and
- Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

- 7. Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]
- 8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 9. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 10. VOC emissions from the components associated with this tank up to the vapor recovery system trunk line shall not exceed 0.3 lb/day. [District Rule 2201]
- 11. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 12. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]
- 13. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4409]
- 14. 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 OMP. [District Rule 4409]
- 15. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 16. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the 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) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 17. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 18. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 19. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
- 20. If applicable, the permittee shall retain at the 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 shall maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623]

21. 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 Rules 4409 and 4623]





AUTHORITY TO CONSTRUCT

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS:

PERMIT NO: C-8578-15-0

PO BOX 2767

LONG BEACH, CA 90801

LOCATION:

LIGHT OIL PRODUCTION FRESNO COUNTY, CA

SECTION: SE5 TOWNSHIP: 16S RANGE: 18E

EQUIPMENT DESCRIPTION:

750 BBL TANK FIXED ROOF WASH TANK SERVED BY VAPOR RECOVERY SYSTEM LISTED ON C-8578-2 (WALROND LEASE)

CONDITIONS

- 1. The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
- 2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 3. This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- 4. This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and 4623]
- 5. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 6. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
- 7. Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquín Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

- 8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 9. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 10. VOC emissions from the components associated with this tank up to the vapor recovery system trunk line shall not exceed 0.2 lb/day. [District Rule 2201]
- 11. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 12. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]
- 13. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4409]
- 14. 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 OMP. [District Rule 4409]
- 15. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 16. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the 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) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 17. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 18. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 19. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
- 20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]

- 21. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time the tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
- 22. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
- 23. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 24. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
- 25. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
- 26. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
- 27. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
- 28. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
- 29. During sludge removal from a tank containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
- 30. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
- 31. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
- 32. 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 Rules 4409 and 4623]





PERMIT NO: C-8578-16-0

ISSUANCE DATE: 12/10/2015

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS:

PO BOX 2767

LONG BEACH, CA 90801

LOCATION:

LIGHT OIL PRODUCTION FRESNO COUNTY, CA

SECTION: SE5 TOWNSHIP: 16S

RANGE: 18E

EQUIPMENT DESCRIPTION:

500 BBL TANK FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR RECOVERY SYSTEM LISTED ON C-8578-2 (WALROND LEASE)

CONDITIONS

- The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and 4623]
- Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
- Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seved Sadredin, Executive Director / APCO

- 8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 9. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 10. VOC emissions from the components associated with this tank up to the vapor recovery system trunk line shall not exceed 0.2 lb/day. [District Rule 2201]
- 11. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 12. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]
- 13. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4409]
- 14. 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 OMP. [District Rule 4409]
- 15. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 16. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the 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) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 17. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 18. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 19. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
- 20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]

- 21. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time the tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
- 22. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
- 23. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 24. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
- 25. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
- 26. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
- 27. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
- 28. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
- 29. During sludge removal from a tank containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
- 30. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
- 31. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
- 32. 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 Rules 4409 and 4623]





PERMIT NO: C-8578-17-0

ISSUANCE DATE: 12/10/2015

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS: PO BOX 2767

LONG BEACH, CA 90801

LOCATION:

LIGHT OIL PRODUCTION FRESNO COUNTY, CA

SECTION: SE5 TOWNSHIP: 16S RANGE: 18E

EQUIPMENT DESCRIPTION:

500 BBL TANK FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR RECOVERY SYSTEM LISTED ON C-8578-2 (WALROND LEASE)

CONDITIONS

- The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 46231
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and 4623]
- Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
- Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

- 8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 9. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 10. VOC emissions from the components associated with this tank up to the vapor recovery system trunk line shall not exceed 0.2 lb/day. [District Rule 2201]
- 11. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 12. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]
- 13. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4409]
- 14. 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 OMP. [District Rule 4409]
- 15. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 16. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmy, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 17. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 18. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 19. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
- 20. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]

- 21. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time the tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
- 22. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
- 23. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 24. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
- 25. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
- 26. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
- 27. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
- 28. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
- 29. During sludge removal from a tank containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
- 30. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
- 31. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
- 32. 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 Rules 4409 and 4623]





AUTHORITY TO CONSTRUCT

PERMIT NO: C-8578-18-0

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS:

PO BOX 2767

LONG BEACH, CA 90801

LOCATION:

LIGHT OIL PRODUCTION FRESNO COUNTY, CA

EQUIPMENT DESCRIPTION:

500 BBL TANK FIXED ROOF WASH TANK SERVED BY 4.9 MMBTU/HR COANDA-EFFECT FLARE (PETERS LEASE)

CONDITIONS

- 1. ATCs C-8578-7-0 and '12-0 shall be canceled upon implementation of this ATC. [District Rule 2201]
- 2. The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
- 3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 4. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1/4 or 5% opacity, [District Rules 2201 and 4101]
- 5. The following permit units shall be tied into the shared vapor recovery system C-8578-18, '19 and '20. [District Rule 2201]
- 6. Flare shall be equipped with operational produced gas volume flow meter. [District Rule 2201]
- 7. Measured heating value and quantity of flared gas shall be used to determine compliance with heat input limit.

 [District Rule 2201]
- 8. The flare outlet shall be equipped with an automatic ignition system, or shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 2201]
- 9. The sulfur compound concentration of gas combusted shall not exceed 5 gr S/100 scf. [District Rule 2201] CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

- 10. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NOx: 0,068 lb/MMBtu; PMl0: 0.003 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201]
- 11. The permittee shall measure sulfur content of gas incinerated in flare within 60 days of startup. [District Rules 2201 and 4801]
- 12. The permittee shall conduct quarterly sampling of the sulfur content of the gas flared. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. [District Rule 2201]
- 13. The sulfur content of the gas being combusted shall be determined using ASTM methods D1072, D3031, D4084, D3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. The sulfur content of flared gas shall be measured within one day of restarting the unit if the unit has not been in use for more than 7 days. [District Rules 1081 and 2201]
- 14. Permittee shall keep accurate records of annual throughput, material usage, or other information necessary to demonstrate that facility emissions are less than 10 tons NOx/yr and 10 tons VOC/yr for exemption from Rule 431 1. [District Rule 4311]
- 15. Permittee shall keep accurate daily and annual records of flare gas volumes, sulfur content, and higher heating value of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]
- 16. This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- 17. This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and 4623]
- 18. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- 19. Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
- 20. Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]
- 21. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 22. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 23. VOC fugitive emissions from this tank and tank vapor control system including vapor control system trunk line not exceed 0.8 lb/day. [District Rule 2201]
- 24. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 25. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]
- 26. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4409]
- 27. 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 OMP. [District Rule 4409]

- 28. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 29. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the 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) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 30. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 31. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 32. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
- 33. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
- 34. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time the tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623]
- 35. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
- 36. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 37. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]

- 38. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
- 39. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
- 40. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
- 41. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
- 42. During sludge removal from a tank containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
- 43. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
- 44. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]
- 45. 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 Rules 4409 and 4623]





PERMIT NO: C-8578-19-0

ISSUANCE DATE: 12/10/2015

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS:

PO BOX 2767

LONG BEACH, CA 90801

LOCATION:

LIGHT OIL PRODUCTION FRESNO COUNTY, CA

EQUIPMENT DESCRIPTION:

400 BBL TANK FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR RECOVERY SYSTEM LISTED ON C-8578-18 (PETERS LEASE)

CONDITIONS

- The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and 46231
- Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
- Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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- 8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
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- 10. VOC emissions from the components associated with this tank up to the vapor recovery system trunk line shall not exceed 0.2 lb/day. [District Rule 2201]
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- 22. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: I) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623]
- 23. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623]
- 24. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623]
- 25. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]
- 26. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623]
- 27. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623]
- 28. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623]
- 29. During sludge removal from a tank containing an organic liquid with a TVP of 1.5 psia or greater, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]
- 30. Permittee shall only transport removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater in closed, liquid leak-free containers. [District Rule 4623]
- 31. Permittee shall store removed sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Intermediate storage of sludge from a tank containing an organic liquid with a TVP of 1.5 psia or greater while determining suitability for use as roadmix must be in vapor leak free containers or in tanks complying with the vapor control requirements of Rule 4623. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623] Federally Enforceable Through Title V Permit
- 32. 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 Rules 4409 and 4623]





PERMIT NO: C-8578-20-0

ISSUANCE DATE: 12/10/2015

LEGAL OWNER OR OPERATOR: THE TERMO COMPANY

MAILING ADDRESS:

PO BOX 2767

LONG BEACH, CA 90801

LOCATION:

LIGHT OIL PRODUCTION FRESNO COUNTY, CA

EQUIPMENT DESCRIPTION:

400 BBL TANK FIXED ROOF CRUDE OIL STORAGE TANK SERVED BY VAPOR RECOVERY SYSTEM LISTED ON C-8578-18 (PETERS LEASE)

CONDITIONS

- The permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Fresno County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- This tank shall be equipped with a fixed roof with no holes or openings. [District Rules 2201 and 4623]
- This tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in gas-tight condition. Collected vapors shall be directed to a gas pipeline or flare with a destruction efficiency of at least 95% by weight, as determined by the test method specified in Section 6.4.6 of District Rule 4623. [District Rules 2201 and 46231
- Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
- Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]
- Except during tank cleaning, tank roof appurtenances shall be maintained leak free. [District Rule 4623]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District, Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seved Sadredin, Executive Director / APCO

Afriand Marjollet, Director of Permit Services

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- 8. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rule 4623]
- 9. A leak-free condition is defined as a condition without a gas leak or liquid 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 liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
- 10. VOC emissions from the components associated with this tank up to the vapor recovery system trunk line shall not exceed 0.2 lb/day. [District Rule 2201]
- 11. There shall be no leaks exceeding 10,000 ppmv from fugitive emissions components associated with this tank. [District Rule 2201]
- 12. The permittee shall maintain with the permit accurate fugitive component counts and resulting emissions from this tank and vapor control system, calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2C: Oil and Gas Production Screening Value Ranges (<10,000 ppmv) Emission Factors with 100% VOC content in components. [District Rules 1070 and 2201]
- 13. The operator shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4409]
- 14. 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 OMP. [District Rule 4109]
- 15. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, process pressure relief device (PRD), component identification, recordkeeping, and notification requirements of Rule 4409 for all components containing or contacting VOCs at this facility except for those components specifically exempted in Sections 4.1 and 4.2 of Rule 4409. [District Rule 4409]
- 16. The operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the 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) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
- 17. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and reinspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]
- 18. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
- 19. The permittee shall maintain monthly records of average daily crude oil throughput. [District Rule 4623]
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