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Puget Sound Clean Air Agency

Puget Sound Clean Air Agency

Notice of Construction No. **11547**

HEREBY ISSUES AN ORDER OF APPROVAL TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. **12593**

Date **DRAFT**

Marine loading of crude oil and ethanol controlled by an existing John Zink Model ZCM-5/5-10-60-X-4/8-4/8 Marine Vapor Combustion Unit (MVCU) with a Vapor Blower Staging Unit (VBSU) and dock safety unit (DSU). The MVCU will also be used to control emissions from the loading of gasoline and gasoline blendstocks as well as an existing fuel oil tank at the dock (TK-35002).
Two new ethanol unloading pumps and associated piping at the refinery rail unloading facility, two new ethanol transfer pumps in the tank farm, converting two existing crude storage tanks to ethanol service (TK-80015 and TK-80020) equipped with Internal Floating Roofs (IFR). This project also includes the installation of three product lines, a ethanol tank to tank transfer line, and a recovered oil line between the main facility and the marine terminal;

This NOC also covers the use of the existing 107 crude railcar offloading stations, 38 of which are capable of offloading ethanol. The crude throughput is 34,775 bbl/day and 12,658,100 bbl/yr (approx. 650 bbl/railcar), and the ethanol thoughput is 3,616,600 bbls/year. Also covered by this NOC are existing crude oil storage tanks (TK-80021, TK-80022, TK-300001 and TK-300002.)

APPLICANT

Ty Gaub
US Oil & Refining Co
PO Box 2255
Tacoma, WA 98401-2255

OWNER

Brady Winder
US Oil & Refining Co
PO Box 2255
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INSTALLATION ADDRESS

US Oil & Refining Co, 3001 Marshall Ave, Tacoma, WA 98421

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.
2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.
3. Tanks T-80015 and T-80020 shall follow the requirements of 40 CFR Part 60, Subparts Kb and Subpart A.
4. The adjustable roof legs on storage tanks T-80015 and T-80020 shall be fitted with vapor seal boots or equivalent.
5. The slotted guidepoles on storage tanks T-80015 and T-80020 shall be equipped with a pole float with either a pole sleeve or a pole wiper. If a pole sleeve isn't employed, the seal of the pole float shall be higher than the pole wiper. The top of the guidepole shall be equipped with a gasketed cap which shall be closed at all times except when gauging or taking liquid samples.

6. The secondary seals on storage tanks T-80015 and T-80020 shall extend from the roof to the tank shell and shall not be attached to the primary seal.

7. The concentration of organic vapor in the vapor space above the internal floating roofs on storage tanks T-80015 and T-80020 shall not exceed 30% of its lower explosive limit (LEL).

8. The emissions from a planned out of service maintenance events that result in degassing of storage tanks T-80015 and T-80020 shall be vented to a control device.

9. The individual drain systems and existing aggregate facilities, as defined in §60.691, for the railcar unloading facility covered under this order shall follow the requirements of 40 CFR Part 60, Subparts QQQ and A.

10. The junction box for individual drain systems, as defined in §60.691, shall be equipped with a P/V valve to prevent the flow of organic vapors from the junction box vent pipe to the atmosphere during normal operation.

11. The group of all the equipment within a process unit (if any) that includes the railcar offloading facility (Crude by Rail Unloading facility) is an affected facility under 40 CFR Part 60, Subparts GGGa and A. At a minimum, all equipment installed under this order at the crude by rail unloading facility that is used for ethanol shall comply with Subpart GGGa.

12. The following components shall meet the requirements of 40 CFR 63 Subpart CC and the owner and/or operator shall include the following components in the facility wide LDAR plan:
    - i) Piping equipment on ethanol tank to tank transfer lines.
    - ii) Piping equipment on recovered oil line transfer lines.

13. The Marine Vapor Combustion Unit (MVCU) shall be used for all marine loading of crude oil, gasoline, ethanol and gasoline blendstocks. The following conditions 14-19 shall not apply to the loading of products with true vapor pressure <1.5 psia, except for Ethanol.

14. The destruction efficiency of the MVCU shall be at least 99.0%, as determined by the procedures in 40 CFR 63.565(d)(1)-(4) and (6)-(8), except as follows:

    i) EPA Method 25A may be used to determine the VOC concentration;

    ii) EPA Method 19 may be used to determine the exhaust flowrate; and

    iii) All testing shall be performed during the last 50% of loading of a tank or compartment.

15. The owner and/or operator shall conduct a performance test for determining compliance with Condition 14 of this Order within 120 days of the MVCU receiving ethanol vapors under this order. The owner and/or operator does not need to submit a test plan before conducting the performance test; however, the notification and test report requirements of Regulation 1, Section 3.07 shall be followed.

16. The owner and/or operator shall maintain the loading cycle average MVCU combustion chamber temperature at or above the average temperature established during the performance test. US Oil shall continuously monitor and record the MVCU combustion chamber temperature during each loading cycle and also keep a record of the loading cycle average. The continuous temperature monitoring device shall meet the requirements in 40 CFR 63.564(e)(4).

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17. For control of fugitive emissions from the vapor collection system components, the owner and/or operator shall comply with the requirements of 40 CFR Part 63, Subpart CC and Section 2.03 of PSCAA Regulation II, except as follows:

    i) The leak threshold for valves shall be 500 ppm;

    ii) Daily calibration drift assessments indicating a negative drift of 10% or more shall require re-monitoring any valve that had a leak rate in excess of 100 ppm during that monitoring day.

18. The owner and/or operator shall limit marine loading to those vessels meeting the requirements for ship-to-shore compatibility in 40 CFR 63.562(b)(1)(ii) and (iii), as determined by the procedures in §63.563(a)(2)-(a)(4), §63.564(c), and §63.565(b) and (c). The owner and/or operator shall document compliance in accordance with the recordkeeping requirements in §63.567(h), (i)(1)-(3) and (i)(5)-(8).

19. Marine loading of crude oil shall not exceed 5,000,000 bbl during any consecutive 12-month period. Marine loading of ethanol shall not exceed 3,616,600 bbl during any consecutive 12-month period. The owner and/or operator shall record the monthly and 12-month rolling total volume of crude oil and ethanol loaded within 30 days of the end of each month.

Additional Requirements for Crude oil Storage tanks TK-80021, TK-80022, TK-300001 and TK-300002, Conditions 20 through 23.

20. These tanks are subject to 40 CFR Part 60, Subpart Kb. Their water draw systems are subject to 40 CFR Part 60, Subpart QQQ.

21. Each cover on access hatches and gauge float wells shall be designed to be bolted or fastened when closed.

22. Each opening for a slotted guidepole shall be equipped with a pole wiper and either a pole float or a pole sleeve. The wiper or seal of the pole float (if used) shall be at or above the height of the pole wiper.

23. Each junction box shall be equipped with a system to prevent the flow of organic vapors from the junction box vent pipe to the atmosphere during normal operation.

24. Pursuant to the State Environmental Policy Act, WAC 197-11-350 and WAC 197-11-660, and Puget Sound Clean Air Agency Regulation I, Sections 2.07 and 2.12, the Puget Sound Clean Air Agency issued an MDNS for Order of Approval 10620 based on the following condition: The total inbound and outbound volume of crude oil transferred over the marine loading facility shall not exceed 14,400,000 bbl during any calendar year. The owner and/or operator shall record the volume of all crude oil transferred over the marine loading facility and report the total for each calendar year to the Agency no later than March 1 of the subsequent year. This condition does not apply to Ethanol transfer, storage, or loading.

25. All records required by this Order of Approval shall be kept onsite for up to five years, up-to-date, and be made readily available to Agency personnel upon request at all times.

26. This Order of Approval No. 11547, issued to allow the storage, transfer and loading of ethanol, cancels and supersedes Orders of Approval No. 10620 (12/2/2013), No. 10758(7/9/2014), and No. 9580 (3/16/2007).

Order of Approval for NC No. 11547

APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.

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Ralph Munoz
Reviewing Engineer

Carole Cenci
Compliance Manager