Oregon
Tina Kotek, Governor

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October 23, 2025

Oil Re-Refining Company Inc.
4150 N Suttle Rd
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Portland, OR 97217
Sent online only

Robert Calica,

DEQ called in the Oil Re-Refining Company, Inc. (ORRCo) facility in Portland, OR to the CAO program on October 30, 2024. DEQ received the submittal of the Cleaner Air Oregon (CAO) Emissions Inventory (Inventory) for ORRCo on March 17, 2025. In accordance with Oregon Administrative Rule (OAR) 340-245-0030(2), DEQ issued a written request on July 16, 2025, requiring additional information and a revised Inventory to be submitted by September 15, 2025. ORRCo submitted a partial response on August 25, 2025, along with a request for an extended deadline of December 31, 2025, for the remaining items. The partial response consisted primarily of modeling files for the tank emission calculations conducted in the BREEZE Tank ESP+ software[1] (Tank ESP) and partial revisions to the AQ520 form.

DEQ has reviewed the Tank ESP files and the partially updated AQ520 form and identified updates and additional information that is needed before approval. In accordance with OAR 340-245-0030(4)(b), DEQ is providing ORRCo with a revised deadline for submittal of revised Tank emission estimation supporting documentation. Please submit the information specified below by December 31, 2025. This request is in addition to, and should be incorporated with, the remaining additional information and revisions requested on July 16, 2025.

1. Submit to DEQ additional information and updates to the Tank ESP model used to estimate emissions from the following Toxics Emissions Units (TEUs) per OAR 340-245-0040(4)(b)(C):

    a. Tanks (TEUs 1, 10, 10a, 11a, 13, 14, 15, 16, 17, 18, 19, 2, 22, 23, 3, 30, 31, 32, 33, 34, 38, 4, 40, 50, 51, 52, 6, 62, 63, 64, 65, 68, 69, 7, 70, 71, 72, 8, 9, 9A, R111, R121, R131, and K945): Provide "Show Calculation Steps" spreadsheet outputs for the following scenarios:
        i. Short term emissions, estimated using the Texas Commission on Environmental Quality (TCEQ) method (an option in Tank ESP); and
        ii. Annual emissions.

    b. TEUs that handle oily wastewater (TEUs 11a, 19, 31, 32, 38, 40, 64, 9A, and DAF1):
        i. Update the stock information to assume the stock is 100% of the base stock (0% water) in accordance with AP-42 Chapter 7.[2] AP-42 Chapter 7, Section 7.1.3.1 states that "tanks containing aqueous mixtures in which phase separation has occurred,

[1] https://shop.trinityconsultants.com/software/tanks/tankesp
[2] EPA, September 2025; AP 42, Fifth Edition, Volume I Chapter 7: Liquid Storage Tanks, available online : https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-fifth-edition-volume-i-chapter-7-liquid-storage-0

resulting in a free layer of oil or other volatile materials floating on top of the water, should have emissions estimated on the basis of properties of the free top layer."

ii. ORRCo may also use one of the following alternative methods for stock composition for emission units that handle oily wastewater:
    1. Methods described in Section 5.7 (Oil Film Surfaces) of EPA's "Air Emissions Models for Waste and Wastewater"[3]; or
    2. Supply supporting information that the materials are miscible along with a proposed approach to estimate tank emissions that considers partitioning between oil and water phase using Henry's law. AP-42 Chapter 7, Section 7.1.4, Case 2 states "for special cases, such as wastewater, where the liquid mixture is a dilute aqueous solution, Henry's Law should be used instead of Raoult's Law in calculating total losses." Tank ESP does not support Henry's Law calculations.

c. Loading Operations (TEUs Railcars, TRK1, TRK2, and TRK3):
    i. Use the "Loading Operations" Source Module in Tank ESP.
    ii. Provide a report from Tank ESP for the Rail and Truck TEUs that includes all parameters used in the emission estimation.

d. Half tanks, oil water separators, and DAF units (TEUs CTW2A, DAF1, HT1, HT2, HT4, and OWS1):
    i. Use the "Catch Pans" Source Module in Tank ESP.
    ii. Provide a report from Tank ESP that includes at least the following information regarding the emissions estimates for these TEUs:
        1. The equations used in the emission estimation; and
        2. All parameters used in the emission estimation for each TEU.

e. Stock Composition:
    i. Use the following for the stock compositions or provide references for DEQ to review alternative compositions:
        1. Gasoline: Use the gasoline speciation enclosed in this letter;
        2. No. 2 Oil: Use Tables 11.16 and 11.18 from EPA's 2003 "Characteristics of Spilled Oils, Fuels, and Petroleum Products"[4]; and
        3. Kerosene: Use the composition provided in Agency for Toxic Substances and Disease Registry's (ATSDR) "Toxicological Profile for JP-5, JP-8, and Jet A Fuels."[5]
    ii. Provide reference for the following stock compositions:
        1. Antifreeze: DEQ anticipates the antifreeze will be composed primarily of ethylene glycol, propylene glycol, and diethylene glycol; and
        2. Coolant water: DEQ anticipates the main non-water constituents of coolant water will be composed primarily of ethylene glycol, propylene glycol, and diethylene glycol.

[3] EPA November 1994. "Air Emissions Models for Waste and Wastewater". Available online: https://www.epa.gov/sites/default/files/2020-08/documents/air_emission_models_waste_wastewater.pdf
[4] EPA 2003: EPA/600/R-03/72. Characteristics of Spilled Oils, Fuels, and Petroleum Products https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NERL&dirEntryId=75033
[5] Agency for Toxic Substances and Disease Registry (ATSDR). March 2017. Toxicological Profile for JP-5, JP-8, and Jet A Fuels. Available online: https://www.atsdr.cdc.gov/toxprofiles/tp121.pdf

iii. Provide a report from Tank ESP that details the constituents of all the stocks used in the emissions estimation.

2. Submit to DEQ a revised AQ520 form with the following updates in accordance with OAR 340-245-0030(4)(b):

    a. Remove the "Tanks 2025," "Sample Calc Tank 3," and "Sample Calc Tank 3 ST" tabs. ORRCo must provide these sample calculation sheets separately for each tank TEU, as required in Comment 1.a, above.

    b. Update the Calculation Emissions equations in Worksheet 3 to remove the division by 1,000. The emission factor units are in lb/gal and the activity units are in gallons; therefore, no additional conversion is required to calculate the emissions estimates.

    c. Update the Calculated Emissions in Worksheet 3 to reflect any revisions needed based on information collected in response to Comment 1 of this letter. Provide to DEQ a summary of these changes.

DEQ requests that you submit additional information to complete your Inventory. If you think that any of that information is confidential, trade secret or otherwise exempt from disclosure, in whole or in part, you must comply with the requirements in OAR 340-214-0130 to identify this information. This includes clearly marking each page of the writing with a request for exemption from disclosure and stating the specific statutory provision under which you claim exemption. Emissions data is not exempt from disclosure.

DEQ remains available to discuss this information request with you and answer any questions you may have. Failure to provide additional information, corrections, or updates to DEQ by the deadlines above may result in a violation of OAR 340-245-0030(4)(b).

If you have any questions regarding this letter please contact me directly at 503-407-7596 or heather.kuoppamaki@deq.oregon.gov. I look forward to your continued assistance with this process.

Sincerely,

Heather Kuoppamaki, P.E.
CAO Project Engineer

Encl: Draft Cleaner Air Oregon TAC Speciation for Gasoline

Cc: Scott Briggs, ORRCo
Louis Bivins, DEQ
Amy DeVita-McBride, DEQ
J.R. Giska, DEQ
File