



OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
STANDARD
AIR CONTAMINANT DISCHARGE PERMIT

Northwest Region
 700 NE Multnomah St., Suite 600
 Portland, OR 97232
 503-229-5263

This permit is being issued in accordance with the provisions of ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Cascade Kelly Holdings LLC
 dba Columbia Pacific Bio-Refinery
 81200 Kallunki Road
 Clatskanie, OR 97016

INFORMATION RELIED UPON:

Application Nos.: 030770 031160
 Dates Received: 06/03/2019 & 02/18/2020

PLANT SITE LOCATION:

Columbia Pacific Bio-Refinery
 Transloading Facility
 81200 Kallunki Road
 Clatskanie, OR 97016

LAND USE COMPATIBILITY FINDING:

Approving Authority: Columbia County
 Approval Date: 03/30/2017

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Steven A. Dietrich, Northwest Region Air Quality Manager

Dated

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-8010):

Table 1 Code	Source Description	SIC/NAICS
Part B, 85	Source which would have actual emissions, if the source were to operate uncontrolled, of 10 or more tons per year of any single criteria pollutant; Marine vessel petroleum loading and unloading	5171/424710, 5169/424690, 4491/488320
Part C, 4	All sources that request a PSEL equal to or greater than the SER for a regulated pollutant	

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1.0 DEVICE, PROCESS AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION

The devices, processes, and pollution control devices regulated by this permit are the following:

OPERATING SCENARIO #1			
Devices and Processes Description	Device ID	Pollution Control Device Description	PCD ID
Marine Vessel Loading	EU01	Vapor Combustion Unit (VCU) (EU-2) OR Vapor Recovery Unit (VRU)	CE01 CE21
8,900 bbl (248,300 gal)	TK6104	Internal Floating Roof	
90,500 bbl (3.8 MMGal)	TK6105	Internal Floating Roof	
90,500 bbl (3.8 MMGal)	TK6106	Internal Floating Roof	
108,000 bbl (4.5 MMGal)	TK6153	Internal Floating Roof	
108,000 bbl (4.5 MMGal)	TK6154	Internal Floating Roof	
108,000 bbl (4.5 MMGal)	TK6155	Internal Floating Roof	
108,000 bbl (4.5 MMGal)	TK6156	Internal Floating Roof	
OPERATING SCENARIO #2			
Devices and Processes Description	Device ID	Pollution Control Device Description	PCD ID
Marine Vessel Loading	EU01	Vapor Combustion Unit (VCU) (EU-2) OR Vapor Recovery Unit (VRU)	CE01 CE21
8,900 bbl (248,300 gal)	TK6104	Internal Floating Roof	
50,000 bbl (2.1 MMGal)	To Be Determined (TBD)	Internal Floating Roof	
50,000 bbl (2.1 MMGal)	TBD	Internal Floating Roof	
50,000 bbl (2.1 MMGal)	TBD	Internal Floating Roof	
250,000 bbl (10.5 MMGal)	TBD	Internal Floating Roof	
250,000 bbl (10.5 MMGal)	TBD	Internal Floating Roof	
250,000 bbl (10.5 MMGal)	TBD	Internal Floating Roof	
250,000 bbl (10.5 MMGal)	TBD	Internal Floating Roof	

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1. Visible Emissions

The permittee must comply with the following visible emission limits from air contaminant sources other than fugitive emission sources, as applicable.

- a. Emissions from the VCU System (EU02) must not equal or exceed 20% opacity. Compliance with this condition is demonstrated by complying with Condition 3.9. [OAR 340-208-0110(3)(b), (4) and (7)]
- b. Any devices or processes installed, constructed, or modified on or after April 16, 2015 must not equal or exceed 20% opacity. [OAR 340-208-0110(4) and (7)]

2.2. Fugitive Emissions

- a. The permittee must take reasonable precautions to prevent fugitive dust emissions from leaving the property of a source. Reasonable precautions include, but are not limited to: [OAR 340-208-0210]
 - i. Using, where possible, water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - ii. Applying water or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - iii. Promptly removing earth or other material that does or may become airborne from paved streets; and
 - iv. Developing a DEQ approved fugitive emission control plan upon request by DEQ if the above precautions are not adequate and implementing the plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period.
- b. In no case may fugitive dust emissions leave the property of a source for a period or periods totaling more than 18 seconds in a six-minute period. Fugitive emissions must be measured by EPA method 22 with the minimum observation time of six minutes.

2.3. Particulate Matter Emissions

The permittee must comply with the following particulate matter emission limits. For fuel burning equipment that burns fuels other than wood, emission results are corrected to 50% excess air.

- a. Particulate matter emissions from VCU system must not exceed 0.14 grains per dry standard cubic foot. [OAR 340-228-0210(2)(b)(B)]
- b. Particulate matter emissions from any fuel burning equipment (except solid fuel burning devices that have been certified under OAR 340-262-0500) that is installed, constructed or modified on or after April 16, 2015 must not exceed 0.10 grains per dry standard cubic foot, corrected to 12% CO₂ or 50% excess air. [OAR 340-228-0210(2)(c)]

- c. Particulate matter emissions from any device or process (other than fugitive emissions sources, fuel burning equipment, refuse burning equipment, or solid fuel burning devices certified under OAR 340-262-0500) that is installed, constructed or modified after April 16, 2015 must not exceed 0.10 grains per dry standard cubic foot. [OAR 340-226-0210(2)(c)]

2.4. Particulate Matter Fallout

The permittee must not cause or permit the deposition of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. [OAR 340-208-0450]

2.5. Complaint Log

The permittee must maintain a log of all complaints received by the permittee in person, in writing, by telephone or through other means that specifically refer to air pollution or odor concerns associated with the permitted facility. Documentation must include: [OAR 340-214-0114]

- a. The date the complaint was received;
- b. The date and time the complaint states the condition was present;
- c. A description of the pollution or odor condition;
- d. The location of the complainant/receptor relative to the plant site;
- e. The status of plant operation or activities during the complaint's stated time of pollution or odor condition; and
- f. A record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

2.6. Fuels and Fuel Sulfur Content

The permittee must not combust any fuels other than natural gas, propane, or butane.

3.0 SPECIFIC PERFORMANCE AND EMISSION STANDARDS

3.1. NSPS Subpart A - General Provision Requirements

The permittee must comply with all provisions of 40 CFR 60 Subpart A – NSPS General Provisions, as applicable, adopted herein by reference.

3.2. NSPS Subpart Kb - Standards of Performance for Volatile Organic Liquid (VOL) Storage Vessels for Which Construction, Reconstruction or Modification Commenced after July 23, 1984

The permittee must comply with all applicable provisions of 40 CFR Subpart Kb, including but not limited to the following, for each affected storage vessel (Note – refer to 40 CFR Subpart Kb and Subpart A for definitions of terminology stated in this condition. The following summarizes the applicable requirements of Subpart Kb, but is not intended to supersede the Subpart):

- a. NSPS Subpart Kb – Applicability
 - i. Subpart Kb is applicable to Volatile Organic Liquid (VOL) “storage vessels.” Storage vessel means each tank, reservoir, or container used for the storage of volatile organic liquids.
 - ii. VOL storage vessels does not include “process tanks” or “pressure vessels.”
 - iii. Process tank means a tank that is used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. Process tanks may be utilized in unit operations activities such as reactions, blending, surge control vessels and bottoms receivers.
- b. 40 CFR 60.112b Standard for volatile organic compounds (VOC)
 - i. The permittee must equip each fixed-roof storage vessel that is subject to this standard (vessels $\geq 39,890$ gallons that contain a VOL with maximum true vapor pressure of at least 5.2 kPa (0.75 psia) but < 76.6 kPa (11.12 psia) or vessels ≥ 75 m³ (19,813 gallons) but < 151 m³ (39,890 gallons) and containing a VOL with maximum true vapor pressure of at least 27.6 kPa (4.0 psia) but < 76.6 kPa (11.12 psia) as follows:
 - A. Each storage vessel must have a fixed roof in combination with an internal floating roof meeting the following specifications:
 1. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
 2. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
 - a. A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal).

A liquid-mounted seal means a foam or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

- b. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
 - c. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
3. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
4. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
5. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
6. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
7. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
8. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
9. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

3.3. Volatile Organic Liquid Throughput Limitation

The permittee is prohibited from exceeding 1,839,600,000 gallons of combined volatile organic liquid product throughput per year, as determined at point of product loadout.

- a. **Volatile organic liquid products allowed under this permit are crude oil, renewable diesel, and ethanol.**
- b. Renewable diesel includes R100 and R100 that has been blended to meet RFS, LCFS or other renewable fuel credit programs.

3.4. Volatile Organic Liquid TVP Limitation

The permittee is prohibited from storing volatile organic liquid product with a monthly average true vapor pressure of 76.6 kPa (11.12 psi) or greater.

3.5. Marine Vessel Loading Vapor Collection

- a. The permittee must design and operate its marine vessel vapor collection system to collect displaced VOC vapors during the loading of crude oil or ethanol to marine tank vessels.
- b. The permittee is prohibited from loading crude oil or ethanol onto any marine vessel that is not equipped with a compatible vapor collection system.
- c. The permittee must ensure that all displaced VOC vapors collected during any crude oil or ethanol loading event are vented only to the in service control device.
- d. The permittee must maintain all hatches, pressure relief valves, connections, gauging ports and vents associated with the loading of crude oil or ethanol onto marine tank vessels must to be leak free and vapor tight at the time of loading.
- e. The permittee must document prior to loading crude oil or ethanol to any marine tank vessel that the vessel is vapor tight using one of the methods in i. through iv. below. The same method need not be used for all marine tank vessels loaded. A “vapor-tight marine vessel” means a marine tank vessel that has demonstrated within the preceding 12 months to have no leaks. A marine tank vessel loaded at less than atmospheric pressure is assumed to be vapor tight for the purpose of this condition.
 - i. *Pressure test documentation for determining vapor tightness of the marine vessel.* The permittee must maintain on site a copy of vapor-tightness pressure test documentation for each marine tank vessel loaded. The date of the test listed in the documentation must be within the preceding 12 months, and the test must be conducted in accordance with the procedures in 40 CFR 63.565(c)(1). The permittee must maintain vapor-tightness pressure test documentation for marine tank vessels loaded at positive pressure.
 - ii. *Leak test documentation for determining vapor tightness of the marine vessel.* The permittee must maintain on site a copy of leak test documentation for each marine tank vessel loaded. The date of the test listed in the documentation must be within the preceding 12 months, and the test must be conducted in accordance with the

- procedures in 40 CFR 63.565(c)(2). The permittee must maintain vapor-tightness leak test documentation for marine tank vessels loaded at positive pressure.
- iii. *Leak test performed during loading using Method 21 for determining vapor tightness of the marine vessel.* If no pressure test or leak test documentation of vapor tightness is available, and the permittee is not engaged in negative pressure loading, the permittee must perform a leak test on the marine tank vessel during marine tank loading operations using the procedures described in 40 CFR 63.565(c)(2). The permittee must maintain records of the leak test documentation for any marine tank vessels loaded at positive pressure using this compliance option. If a leak is detected, that marine tank vessel may not be loaded again at the terminal until the marine tank vessel is demonstrated to be vapor-tight.
 - iv. *Negative pressure loading.* The permittee must ensure that a marine tank vessel is loaded with the product tank below atmospheric pressure (i.e., at negative gauge pressure). The pressure shall be measured immediately downstream of the dock safety unit and the measured pressure must be below atmospheric pressure. Marine tank vessel loading operations must be performed below atmospheric pressure (i.e., at negative gauge pressure) in the product tank.
 - A. If the permittee utilizes negative pressure loading, it must install, calibrate, maintain, and operate a recording pressure measurement device (magnehelic gauge or equivalent device) and an audible and visible alarm system that is activated when the pressure vacuum is less than 1/2 inch of water. The permittee must place the alarm system so that it can be seen and heard where cargo transfer is controlled. The pressure must be measured immediately downstream of the dock safety unit and the measured pressure vacuum must be no less than 1/2 inch of water.
 - B. The permittee must verify the accuracy of the pressure vacuum measurement device once each calendar year with a reference pressure monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent pressure measurement device dedicated for this purpose).
 - C. If measured pressure vacuum drops below 1/2 inch of water, then the permittee must take immediate corrective action to return the negative pressure to 1/2 inch of water or above.
 - D. The permittee must maintain a log in which it must identify each time that the pressure drops below 1/2 inch of water during marine tank vessel loading operations, the corrective action taken and the duration of the period of marine tank vessel loading operations where negative pressure was below 1/2 inch of water.
 - E. Having the negative pressure go below 1/2 inch of water during marine tank vessel loading operations is not a violation of this permit. However, the failure to log the event or to take immediate corrective action may constitute a violation of this permit.
 - f. The permittee must maintain a documentation file for each marine tank vessel loaded at the source and for which the pressure test or leak test compliance option is relied upon.

The permittee must update this documentation at least once per year. The permittee must include, as a minimum, the following information in this documentation:

- i. Test title;
 - ii. Marine vessel owner and address;
 - iii. Marine vessel identification number;
 - iv. Testing location;
 - v. Date of test;
 - vi. Tester name and signature;
 - vii. Test results.
- g. The permittee must maintain a documentation file of each calibration and accuracy verification performed if/when the negative pressure loading option is relied upon. The permittee must update this documentation at least once per year. The permittee shall include, as a minimum, the following information in this documentation:
- i. Test title;
 - ii. Date of test;
 - iii. Testing location;
 - iv. Documentation of reference pressure monitor standard;
 - v. Test results.
 - vi. A leak under this condition shall mean a reading of 10,000 parts per million volume (ppmv) or greater as methane that is determined using Method 21, 40 CFR 60, Appendix A.

3.6. Vapor Collection and Control

The permittee must control VOC vapors collected by the marine vessel vapor collection system during the marine loading of crude oil or ethanol by either the VCU or VRU.

3.7. Lightering of Volatile Organic Liquid Products

The permittee is prohibited from performing or allowing lightering of volatile organic liquid products from marine vessels moored at its dock.

3.8. Vapor Combustion Unit System Operating Conditions

- a. The permittee must design and configure the exhaust stacks of the VCU system to comply with EPA's Test Method 1 and appropriately equipped with sample ports for sample and velocity traverses while source testing.
- b. The permittee must install a temperature monitoring system to continuously monitor and record the operating temperature in the combustion zones of the VCU system.
- c. The permittee must log temperature data points at least every 5-minutes, during all hours of device operation.
- d. The permittee must maintain the operating temperature of the VCU system at or above the average operating temperature recorded during the most recent approved source test. The average temperature during the November 19, 2019, source test was 2,195°F

- e. The permittee must equip the VCU system with a process interlock that halts volatile organic liquid loading during VCU system malfunction or upset condition events.
- f. The permittee is prohibited from combusting more than 1,012,457 MMBtu/yr (10,946,000 gallons) of propane per year in the VCU system (EU02).

3.9. VCU System Visible Emissions Monitoring

- a. The permittee must perform visible emissions monitoring in accordance with the procedures of EPA Method 22 (non-certified reader method) according to the following schedule.
 - i. Daily Method 22 Testing - Perform a visual emissions determination once per day, on each day the VCU is in operation.
 - ii. Weekly Method 22 Testing - If no visible emissions are detected in 10 consecutive daily Method 22 tests, the permittee may decrease the frequency of testing to once each calendar week. If visible emissions are detected during a weekly test, a daily testing schedule must be resumed until 10 consecutive daily tests are again recorded during which no visible emissions are detected.
 - iii. Monthly Method 22 Testing - If no visible emissions are detected in 8 consecutive weekly Method 22 tests, the permittee may decrease the frequency of testing to once each calendar month. If visible emissions are detected during a monthly test, a weekly testing schedule must be resumed until 8 consecutive weekly tests are again recorded during which no visible emissions are detected.
- b. The permittee must conduct each Method 22 test while the facility is operating under normal conditions.
- c. The permittee must conduct each Method 22 test for a duration of at least 15 minutes.
- d. The permittee must consider visible emissions to be present if detected for more than three minutes of the fifteen minute period.
- e. If visible emissions are detected the permittee must:
 - i. Perform corrective actions until the visible fugitive emissions are eliminated.
 - ii. After completing the corrective action, perform a follow-up EPA Method 22 inspection for visible emissions. Conduct the test while the facility is operating under normal conditions.
 - iii. Notify DEQ (see Condition 11.3) of any visible emissions incident that cannot be remedied within 4 hours of its onset.
 - iv. Notify DEQ of any period of visible emissions incidents amounting to 4 hours or more in any calendar week.
 - v. The notification requirements identified above must be made within 60 minutes of the triggering event.
- f. If visible emissions are observed at any time outside of the normal observation schedule the permittee must treat the incident as a monitoring event in accordance with the corresponding schedule to which the permittee is subject and follow procedures identified above.

3.10. Vapor Recovery Unit System Operating Condition

The permittee must equip the VRU system with a process interlock that halts volatile organic liquid loading during VRU system malfunction or upset condition events.

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

4.1. Process Leak Detection Program

The permittee must implement a process component leak detection program that at a minimum includes the following performance requirements:

Monthly, the permittee must maintain all process associated pipes, ductwork, connectors, valves/flanges, pumps and compressors to be leak free and vapor tight. Leak free and vapor tight conditions are to be verified and achieved by complying with the following inspection and repair protocol:

- a. The permittee must perform an inspection of the facility's VOL product receipt, loading and vapor collection associated components in volatile organic liquid product service;
- b. The monthly inspection is to be done by evaluating the components using Method 21;
- c. Each detection of a leak shall be recorded. A leak is detected whenever a measured concentration of 10,000 ppm or greater is detected;
- d. An attempt must be made to correct components identified to have recognized leaks within 5 calendar days. Components that cannot be repaired with the first attempt must be tagged and logged, noting the date of the identified leak;
- e. Leaking components must be repaired within 15 days;
- f. Leaking components that are not repairable within the 15-day period must be reported to DEQ by 5:00 p.m. of the 15th day by phone, fax or e-mail. The report must identify the leaking component(s), the anticipated alternate repair period and the justification for an extended repair period.
- g. Leaking components that are taken out of service by isolation and bypass are not required to be reported to DEQ as required by Condition 4.1.f.
- h. DEQ may require submission of an excess emission report in accordance with Condition 9.1 for reported leaking components.

4.2. Standard Procedures for Marine Vessel Loading Events

During each marine vessel loading event the permittee must follow the standard procedures titled "Barge Loading," "Completion of Barge Loading" and "PIC Dock Operations Finishing a Barge," as provided to DEQ. The permittee must resubmit this information to DEQ any time modifications are made to procedures affecting the permittee's Vapor Collection System.

4.3. Vapor Combustion Unit O&M

The permittee must operate and maintain the Jordan CEB 4800 VCU system (EU2) in accordance with manufacturer's specifications while the VCU is the in-service VOC abatement device for marine vessel loading. The permittee must maintain a copy of the manufacturer's O&M specifications on-site and available for inspection and reference.

4.4. Vapor Recovery Unit O&M

The permittee must operate and maintain the John Zink VRU in accordance with manufacturer's specifications while the unit is the in-service VOC abatement device for marine vessel loading. The permittee must maintain a copy of the manufacturer's O&M specifications on-site and available for inspection and reference.

4.5. Operation of Pollution Control Devices and Processes

The permittee must operate and ensure proper functioning of all air pollution control devices and components at all times when the associated emission source is operating. [OAR 340-226-0120]

4.6. Highest and Best Practicable Treatment and Control

The permittee must provide the highest and best practicable treatment and control of air contaminant emissions in every case so as to maintain overall air quality at the highest possible levels, and to maintain contaminant concentrations, visibility reduction, odors, soiling, and other deleterious factors at the lowest possible levels. [OAR 340-226-0100]

5.0 PLANT SITE EMISSION LIMITS

5.1. Plant Site Emission Limits (PSEL)

The permittee must not cause or allow plant site emissions to exceed the following: [OAR 340-222-0040 and/or OAR 340-222-0041,]

Pollutant	Limit	Units
PM	24	tons per year
PM ₁₀	14	
PM _{2.5}	9	
SO ₂	39	
NO _x	39	
CO	99	
VOC	78	
GHGs (CO ₂ e)	74,000	

5.2. HAP PSEL

The permittee must not cause or allow plant site emissions from sources 05-0006 and 05-0023 combined to exceed 9 tons per year of any individual HAP. [OAR 340-222-0060]

5.3. Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period. [OAR 340-222-0035]

6.0 COMPLIANCE DEMONSTRATION

6.1. NSPS Subpart Kb Testing Requirements

The permittee must perform testing of each storage tank subject to Subpart Kb in accordance with 40 CFR 60.113b:

- a. After installing the control equipment required to meet Condition 3.2.b.i.A. of the permit [40 CFR 60.112b(a)(1)] (permanently affixed roof and internal floating roof), the permittee must:
 - i. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL.

- If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.
- ii. For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in Condition 9.2.a. of the permit [40 CFR 60.115b(a)(3)]. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
 - iii. For vessels equipped with a double-seal system as specified in Condition 3.2.b.i.A.2.b. of the permit [40 CFR 60.112b(a)(1)(ii)(B)]:
 - A. Visually inspect the vessel as specified in paragraph 6.1.a.iv. of this section at least every 5 years; or
 - B. Visually inspect the vessel as specified in paragraph 6.1.a.ii. of this section.
 - iv. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs 6.1.a.ii. and 6.1.a.iii.B. of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph 6.1.a.iii.A. of this section.
 - v. Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs 6.1.a.i. and 6.1.a.iv. of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph 6.1.a.iv. of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written

documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

6.2. Monitoring Requirements

The permittee must continuously monitor and record the operating temperatures in the combustion zones of the VCU system EU02 as follows: [OAR 340-226-0120]

- a. Temperature data points must be logged at least every 5-minutes, during all hours of device operation.
- b. Monitored data must be reduced to demonstrate the average hourly operating temperatures of the units.

6.3. PSEL Compliance Monitoring using Emission Factors

The permittee must calculate the emissions for each 12-consecutive calendar month period based on the following calculation for each pollutant except GHGs: [OAR 340-222-0080]

$$E = \Sigma(EF \times P) \times 1 \text{ ton}/2000 \text{ pounds}$$

where:

- E = pollutant emissions (tons/year);
Σ = symbol representing “summation of”;
EF = pollutant emission factor (see Condition 14.0);
P = process monitoring parameter (see Condition 15.0)

6.4. Emission Factors

The permittee must use the default emission factors provided in Condition 14.0 for calculating pollutant emissions, unless alternative emission factors are approved in writing by DEQ. The permittee may request or DEQ may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by DEQ. [OAR 340-222-0080]

6.5. Greenhouse Gas Emissions

The permittee must calculate greenhouse gas emissions in metric tons and short tons for each 12-consecutive calendar month period to determine compliance with the GHG PSEL by using the DEQ Fuel Combustion Greenhouse Gas Calculator available at <https://www.oregon.gov/deq/FilterDocs/ghgCalculatorFuelCombust.xlsx>. [OAR 340-215-0040]

6.6. PSEL Compliance Monitoring

The permittee must demonstrate compliance with the PSEL by totaling the emissions from all point sources calculated under Conditions 6.3 and 6.5. [OAR 340-222-0080]

7.0 SOURCE TESTING

7.1. Source Testing Requirements

The permittee must perform the following source tests: [OAR 340-212-0120]

- a. The permittee must conduct a source test of the VCU system to verify emission factors used to determine compliance with the PSELs of Condition 5.1.
 - i. The permittee must test within 24 months of permit issuance unless:
 - A. An extension is approved by DEQ; or
 - B. The permittee is loading only renewable diesel.
 - ii. The permittee must also conduct an additional source test of the VCU system each time the VOL being loaded is changed unless VCU testing for that VOL has been completed during the term of this permit. The source test, if required, must be performed within 180 days of switching the VOL being loaded.
 - iii. The pollutants tested are based on the volatile organic liquid loaded:
 - A. If ethanol is being loaded, the permittee must test for VOC.
 - B. If crude oil is being loaded, the permittee must test for NO_x, CO, and VOC.
 - C. Testing is not required for renewable diesel loading.
 - iv. During the source test, the following parameters must be monitored and recorded:
 - A. Quantity (in gallons) of volatile organic liquid loaded;
 - B. Operating temperatures of the VCU system combustion zones, expressed as one-hour averages;
 - C. Visible emissions as measured by EPA Method 9 for a period of at least six minutes during or within 30 minutes before or after each test run; and
 - D. Other facility/process operating parameters identified prior to the test.
- b. The permittee must conduct a source test of the VRU to verify emission factors used to determine compliance with the PSELs of Condition 5.1.
 - i. The permittee must test within 180 days of operating the VRU for emissions control unless:
 - A. An extension is approved by DEQ; or

- B. The permittee is loading only renewable diesel.
- ii. The permittee must also conduct an additional source test of the VRU each time the VOL being loaded is changed unless VRU testing for that VOL has already been completed during the term of this permit. The source test, if required, must be performed within 180 days of switching the VOL being loaded.
- iii. The permittee must test for VOC.
- iv. Testing is not required for renewable diesel loading.
- v. During the source test, the following parameters must be monitored and recorded:
 - A. Quantity (in gallons) of volatile organic liquid loaded; and
 - B. VRU carbon bed cycle time.
- c. All tests must be conducted in accordance with DEQ’s Source Sampling Manual and the approved source test plan. The source test plan must be submitted at least 30 days in advance and approved by the Regional Source Test Coordinator. The source test report must be submitted to the Regional Source Test Coordinator within 60 days of the test unless otherwise approved in the source test plan.

Tested Pollutant	Reference Test Method*
NOx	EPA Method 7E
CO	EPA Method 10
VOC	EPA Method 18, 25A, or 320 Method must be optimized/calibrated to ethanol if ethanol is the VOL being loaded
Acetaldehyde	EPA Method 320, NCASI ISS/FP-A 105.01, or CARB Method 430
Opacity	EPA Method 9

*Substitution of alternative test methods must be pre-approved by the DEQ.

- d. DEQ may approve an extension of a testing deadline stated above if the permittee provides adequate justification for the extension. DEQ may require a delay if the facility’s operating capacity appears insufficient to provide representative emission data.
- e. During the source test, stack exhaust gas must be sampled while the facility is operating at approximately its maximum normal operating capacity.
- f. The source test must consist of at least three (3) test runs and the emissions results must be reported as the arithmetic average of all valid test runs. If a test run is invalid for reasons beyond the control of the permittee, DEQ may accept two (2) test runs for emission factor verification or for demonstrating compliance with an emission limit or standard.
- g. Test results must report measured emissions as ppmvd, lb/hr, and lb/10³ gallon of product loaded.
- h. Only regular operating staff may adjust the combustion system or production processes and emission control parameters during the source test and within two hours prior to the source test. Any operating adjustments made during the source test, which are a result of consultation with source testing personnel, equipment vendors or consultants, may render the source test invalid.

8.0 RECORDKEEPING REQUIREMENTS

8.1. NSPS Kb

The permittee must comply with all applicable monitoring and recordkeeping requirements of 40 CFR Subpart Kb (see 40 CFR 60.116b Monitoring of operations and 40 CFR 60.115b Reporting and recordkeeping requirements):

- a. The permittee must keep readily accessible records showing the dimensions of each Subpart Kb subject storage vessel and an analysis showing the capacity of the storage vessel. **These records must be kept for the life of the respective source.**
- b. For each Subpart Kb subject storage vessel, either with a design capacity greater than or equal to 39,890 gallons storing a liquid with a maximum true vapor pressure greater than or equal to 0.5 psi or with a design capacity greater than or equal to 19,813 gallons but less than 39,890 gallons storing a liquid with a maximum true vapor pressure greater than or equal to 2.2 psi, the permittee must maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
- c. The permittee may use available data on the storage temperature to determine the maximum true vapor pressure as determined below:
 - i. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.
 - ii. For refined petroleum products the vapor pressure may be obtained by the following:
 - A. Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see 40 CFR 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
 - B. The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
 - iii. For non-petroleum liquids, the vapor pressure:
 - A. May be obtained from standard reference texts, or
 - B. Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see 40 CFR 60.17); or
 - C. Measured by an appropriate method approved by the Administrator; or

- D. Calculated by an appropriate method approved by the Administrator.
- d. After installing the control equipment required to meet Condition 3.2.b.i. of the permit [40 CFR 60.112b(a)(1)] (permanently affixed roof and internal floating roof), the permittee must keep a record of each inspection performed as required by permit Conditions 6.1.a.i., 6.1.a.ii., 6.1.a.iii., and 6.1.a.iv. (as applicable). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

8.2. Operation and Maintenance

The permittee must maintain the following records related to the operation and maintenance of the facility and associated air contaminant control devices: [OAR 340-214-0114]

- a. Record of each marine vessel arrival and loading event including signed-off records of the standard operating procedures identified in Condition 4.2. for each event;
- b. Monitoring records for the Marine Vessel Loading Vapor Collection system as required in Condition 3.5.
- c. Quantity (gallons) and type of VOL received into storage (measurement not to include ethanol manufactured by Source #05-0006), monthly.
- d. Quantity (gallons) and type of VOL loaded onto marine vessels (measurement not to include ethanol manufactured by Source #05-0006), monthly.
- e. Roof landing events for each VOL storage tank, each occurrence.
- f. Quantity (MMBtu) and type of fuel combusted in Vapor Combustion Unit EU02, monthly.
- g. Records documenting the performance of each EPA Method 22 visible emissions test and any associated corrective actions performed, as required by Condition 3.9., daily, weekly, and monthly per Condition 3.9.
- h. Results of the monthly leak detection evaluation required in Condition 4.1., monthly:
 - i. Date of inspection;
 - ii. Findings – identification of leaking component, location, nature and severity (instrument reading) of each leak; or indicate no leaks;
 - iii. Corrective action - for each detected leak record the corrective action performed and date of repair;
 - iv. Maintain a record of each leaking component report submitted to DEQ as required by Condition 4.1.f.
- i. Records of calculations of emissions for each pollutant type for which there is a PSEL, to demonstrate compliance with the rolling 12-month PSEL limitations of Conditions 5.1. and 5.2. (see Condition 6.5. for GHG specific monitoring requirements), monthly.
- j. Records of fuel usage and other parameters sufficient to demonstrate compliance with the GHG PSEL and be able to determine emissions for any 12 consecutive month period(s), monthly.
- k. Records of the monthly average True Vapor Pressure of each volatile organic liquid product stored consistent with Condition 8.1.b., monthly.
- l. Records of O&M activities performed in accordance with manufacturer's specifications for the Jordan CEB 4800 VCU system as required in Condition 4.3., as required.

- m. Records of O&M activities performed in accordance with manufacturer's specifications for the John Zink VRU as required in Condition 4.4., as required.
- n. Records of major maintenance performed on air pollution control equipment, each occurrence.

8.3. Excess Emissions

- a. The permittee must maintain the records of excess emissions listed below and as defined in OAR 340-214-0300 through 340-214-0340, recorded on occurrence. Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity as a six-minute block average.
 - i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;
 - ii. The date and time the permittee notified DEQ of the event;
 - iii. The equipment involved;
 - iv. Whether the event occurred during planned startup, planned shutdown, scheduled maintenance, or as a result of a breakdown, malfunction, or emergency;
 - v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed;
 - vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations); and
 - vii. The final resolution of the cause of the excess emissions;
- b. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must immediately take action to minimize emissions by reducing or ceasing operation of the equipment or facility, unless doing so could result in physical damage to the equipment or facility, or cause injury to employees. In no case may the permittee operate more than 48 hours after the beginning of the excess emissions, unless continued operation is approved by DEQ in accordance with OAR 340-214-0330(4).
- c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee must immediately notify DEQ by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.
- d. If permittee anticipates that scheduled maintenance may result in excess emissions, the permittee must submit scheduled maintenance procedures used to minimize excess emissions to DEQ for prior authorization, as required in OAR 340-214-0320. New or modified procedures must be received by DEQ in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.
- e. The permittee must maintain a log of all excess emissions in accordance with OAR 340-214-0340(3).

8.4. Complaint Log

The permittee must maintain a log of all complaints received by the permittee in person, in writing, by telephone or through other means that specifically refer to air pollution concerns associated to the permitted facility. Documentation must include date of contact, date and time of observed nuisance condition, description of nuisance condition, location of receptor, status of plant operation during the observed period, and date and time of response to complainant. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution. [OAR 340-214-0114]

8.5. Retention of Records

Unless otherwise specified, the permittee must retain all records for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application and make them available to DEQ upon request. The permittee must maintain the two (2) most recent years of records onsite. [OAR 340-214-0114]

9.0 REPORTING REQUIREMENTS

9.1. Excess Emissions

The permittee must notify DEQ of excess emissions events if the excess emission is of a nature that could endanger public health.

- a. The permittee must also submit follow-up reports summarizing records of excess emissions as required in Condition 8.3 when required by DEQ.
- b. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 11.0 by email, telephone, facsimile, or in person.

9.2. NSPS Subpart Kb

The permittee must submit the following Subpart Kb specific reports/notifications to the EPA Administrator and DEQ, as applicable:

- a. If any of the conditions described in Condition 6.1.a.ii. of the permit [40 CFR 60.113b(a)(2)] are detected during the required annual visual inspection, a report shall be furnished to the Administrator and DEQ within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
- b. After each inspection required by Condition 6.1.a.iii. of the permit [40 CFR 60.113b(a)(3)] that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in Condition 6.1.a.iii.B. [40 CFR 60.113b(a)(3)(ii)], a report shall be furnished to the EPA Administrator and DEQ within 30 days of the inspection. The report shall identify the storage vessel and the reason it did

not meet the required specifications [of 40 CFR 60.112b(a)(1) or 40 CFR 60.113b(a)(3)] and list each repair made.

- c. Provide notification to the EPA Administrator and DEQ in writing, in accordance with the criteria stated in Condition 6.1.a.v., prior to the filling or refilling of each storage vessel for which an inspection is required by Conditions 6.1.a.i. and 6.1.a.iv.

9.3. Operating Scenario Changes

The permittee must notify DEQ with 30 calendar days of switching between Operating Scenario 1 and Operating Scenario 2 as described in Condition 1.0. [OAR 340-216-0066 (3)(c)]

9.4. Annual Report

For each year this permit is in effect, the permittee must submit to DEQ by **February 15** two (2) paper copies and one (1) electronic copy of the following information for the previous calendar year:

- a. Operating parameters:
 - i. A statement of the facility's compliance status with the conditions of the permit for the calendar year. Any violations or exceedances must be explained in detail including corrective actions taken.
 - ii. Quantity (gallons) of crude oil transloaded onto marine vessels.
 - iii. Quantity (gallons) of ethanol (from external sources; i.e., not manufactured on site by source 05-0006) transloaded onto marine vessels.
 - iv. Quantity (gallons) of renewable diesel transloaded onto marine vessels.
 - v. Quantity (MMBtu) and type of fuel combusted in the VCU system.
- b. Calculations of annual pollutant emissions determined each month in accordance with Condition 6.3.
- c. A brief summary listing the date, time, and the affected device/process for each excess emission that occurred during the reporting period.
- d. Summary of complaints relating to air quality received by permittee during the year in accordance with Condition 8.4.
- e. List permanent changes made in facility process, production levels, and pollution control equipment which affected air contaminant emissions.
- f. List major maintenance performed on pollution control equipment.

9.5. Greenhouse Gas Registration and Reporting

- a. If the calendar year greenhouse gas emissions (CO₂e) are ever greater than or equal to 2,756 tons (2,500 metric tons), the permittee must annually register and report its greenhouse gas emissions with DEQ in accordance with OAR 340 division 215.
- b. If the calendar year greenhouse gas emissions (CO₂e) are less than 2,756 tons (2,500 metric tons) for three consecutive years, the permittee may stop reporting greenhouse gas emissions but must retain all records used to calculate greenhouse gas emissions for the five years following the last year that they were required to report. The permittee must

resume reporting its greenhouse gas emissions if the calendar year greenhouse gas emissions (CO₂e) are greater than or equal to 2,756 tons (2,500 metric tons) in any subsequent calendar year.

9.6. Notice of Change of Ownership or Company Name

The permittee must notify DEQ in writing using a DEQ “Transfer Application Form” within 60 days after the following:

- a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or
- b. Sale or exchange of the activity or facility.

9.7. Construction or Modification Notices

The permittee must notify DEQ in writing using a DEQ “Notice of Intent to Construct Form,” or other permit application form and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 before:

- a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;
- b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or
- c. Constructing or modifying any air pollution control equipment.

10.0 ADMINISTRATIVE REQUIREMENTS

10.1. Permit Renewal Application

The permittee must submit the completed application package for renewal of this permit **180 days prior to the expiration date**. Two (2) paper copies and one (1) electronic copy of the application must be submitted to the DEQ Permit Coordinator listed in Condition 11.2. [OAR 340-216-0040]

10.2. Permit Modifications

Application for a modification of this permit must be submitted at least 60 days prior to the source modification. When preparing an application, the applicant should also consider submitting the application 180 days prior to allow DEQ adequate time to process the application and issue a permit before it is needed. A special activity fee must be submitted with an application for the permit modification. The fees and two (2) copies of the application must be submitted to the DEQ Business Office.

10.3. Annual Compliance Fee

The permittee must pay the annual fees specified in OAR 340-216-8020, Table 2, Parts 2 and 3 for a Standard ACDP on **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by DEQ regulations will be mailed prior to the above date. **Late fees in accordance with Part 5 of the table will be assessed as appropriate.**

10.4. Change of Ownership or Company Name Fee

The permittee must pay the non-technical permit modification fee specified in OAR 340-216-8020, Table 2, Part 4 with an application for changing the ownership or the name of the company.

10.5. Special Activity Fees

The permittee must pay the special activity fees specified in OAR 340-216-8020, Table 2, Part 4 with an application to modify the permit.

11.0 DEQ CONTACTS / ADDRESSES

11.1. Business Office

The permittee must submit payments for invoices, applications to modify the permit, and any other payments to DEQ's Business Office:

Oregon Dept. of Environmental Quality
Financial Services – Revenue Section
700 NE Multnomah St., Suite 600
Portland, Oregon 97232-4100

11.2. Permit Coordinator

The permittee must submit all notices, reports (annual reports, source test plans and reports, etc.), and applications that do not include payment to the Permit Coordinator.

Oregon Dept. of Environmental Quality
Northwest Region
Air Quality Permit Coordinator
700 NE Multnomah St., Suite 600
Portland, OR 97232-4100
nwraqpermits@deq.state.or.us

11.3. Report Submittals

Unless otherwise notified, the permittee must submit all reports (annual reports, source test plans and reports, etc.) to DEQ's Region. If you know the name of the Air Quality staff member responsible for your permit, please include it:

Oregon Dept. of Environmental Quality
Northwest Region Air Quality
700 NE Multnomah St., Suite 600
Portland, OR 97232-4100

11.4. Web Site

Information about air quality permits and DEQ's regulations may be obtained from the DEQ web page at www.oregon.gov/deq/.

12.0 GENERAL CONDITIONS AND DISCLAIMERS

12.1. Permitted Activities

- a. Until this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from the following:
 - i. Processes and activities directly related to or associated with the devices/processes listed in Condition 1.0 of this permit;
 - i. Any categorically insignificant activities, as defined in OAR 340-200-0020, at the source; and
 - ii. Construction or modification changes that are Type 1 or Type 2 changes under OAR 340-210-0225 that are approved by DEQ in accordance with OAR 340-210-0215 through 0250, if the permittee complies with all of the conditions of DEQ's approval to construct and all of the conditions of this permit.
- b. Discharge of air contaminants from any other equipment or activity not identified herein is not authorized by this permit.

12.2. Other Regulations

In addition to the specific requirements listed in this permit, the permittee must comply with all other applicable legal requirements enforceable by DEQ.

12.3. Conflicting Conditions

In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply. [OAR 340-200-0010]

12.4. Masking of Emissions

The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement. [OAR 340-208-0400]

12.5. DEQ Access

The permittee must allow DEQ's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468.095.

12.6. Permit Availability

The permittee must have a copy of the permit available at the facility at all times. [OAR 340-216-0020(3)]

12.7. Open Burning

The permittee may not conduct any open burning except as allowed by OAR 340, division 264.

12.8. Asbestos

The permittee must comply with the asbestos abatement requirements in OAR 340, division 248 for all activities involving asbestos-containing materials, including, but not limited to, demolition, renovation, repair, construction, and maintenance.

12.9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

12.10. Permit Expiration

- a. A source may not be operated after the expiration date of the permit, unless any of the following occur prior to the expiration date of the permit: [OAR 340-216-0082]

- i. A timely and complete application for renewal of this permit or for a different ACDP has been submitted; or
 - ii. A timely and complete application for renewal or for an Oregon Title V Operating Permit has been submitted; or
 - iii. Another type of permit (ACDP or Oregon Title V Operating Permit) has been issued authorizing operation of the source.
- b. For a source operating under an ACDP or Oregon Title V Operating Permit, a requirement established in an earlier ACDP remains in effect notwithstanding expiration of the ACDP, unless the provision expires by its terms or unless the provision is modified or terminated according to the procedures used to establish the requirement initially.

12.11. Permit Termination, Revocation, or Modification

DEQ may terminate, revoke, or modify this permit pursuant to OAR chapter 340 division 216. [OAR 340-216-0082].

13.0 AUTHORIZATION TO CONSTRUCT

13.1. This permit allows the permittee to construct and operate the following listed additional emission sources to be used at the transloading facility:

- a. Storage Tanks consisting of:
 - i. Four (4) new 108,000-barrel (4.5 MMGal) internal floating roof volatile organic liquid storage tanks (TK6153-TK6156); or
 - ii. Three (3) – 50,000-barrel tanks and one (1) – 250,000-barrel tank at the adjacent Portland General Electric (PGE) tank farm.
 - A. The tanks must be refurbished to comply with the requirements of 40 CFR 60 Subpart Kb.
 - B. The tanks must be operated in place of the two (2) existing 3.8-million gallon tanks (TK6105 and TK6106) and four (4) 108,000-barrel tanks (TK6153-TK6156) with product pipelines to the loading and unloading points
- b. Pumps, piping, and other ancillary equipment necessary to support the new/refurbished tanks, VCU, and VRU and incorporate them into the transloading process.

14.0 EMISSION FACTORS

Emissions device or activity	Pollutant	Emission Factor (EF)	EF units	EF Reference
Crude Oil Storage Tank(s) (FS01)	VOC, HAP	Use TANKS software or AP-42 algorithms for 12-month emission rate calculation	lb/month	TANKS software, AP-42 Section 7.1
Ethanol Storage Tank(s) (FS01)	VOC, HAP	Use TANKS software or AP-42 algorithms for 12-month emission rate calculation	lb/month	TANKS software, AP-42 Section 7.1
Renewable Diesel Storage Tank(s) (FS01)	VOC, HAP	Use TANKS software or AP-42 algorithms for 12-month emission rate calculation	lb/month	TANKS software, AP-42 Section 7.1
Marine Vessel Ethanol Loading (EP01-VRU)	VOC	9.86E-03	lbs/10 ³ gal loaded	Source test data 2008
	Acetaldehyde	1.62E-04	lbs/10 ³ gal loaded	1.64% acetaldehyde in VOCs
Marine Vessel Crude Oil Loading (EP01-VRU)	VOC	5.06E-02	lbs/10 ³ gal loaded	Source test data 2013
Marine Vessel Ethanol Loading (EP01/EU01&02-VCU)	VOC	7.21E-05	lbs/10 ³ gal loaded	Source test data 2016-2019
	PM/PM ₁₀ /PM _{2.5}	7.06E-03	lbs/10 ³ gal loaded	AP-42 Section 1.5 (lb/hr) ÷ lowest tested loading rate 2016-2019
	SO ₂	1.02E-03	lbs/10 ³ gal loaded	AP-42 Section 1.5 (lb/hr) ÷ lowest tested loading rate 2016-2019

Emissions device or activity	Pollutant	Emission Factor (EF)	EF units	EF Reference
	NO _x	7.89E-04	lbs/10 ³ gal loaded	Source test data 2016-2019
	CO	9.02E-05	lbs/10 ³ gal loaded	Source test data 2016-2019
	Acetaldehyde	8.05E-06	lbs/10 ³ gal loaded	Source test data 2019
Marine Vessel Crude Oil Loading (EP01/EU01&02-VCU)	VOC	3.86E-04	lbs/10 ³ gal loaded	Source test data 2015
	PM/PM ₁₀ /PM _{2.5}	4.88E-03	lbs/10 ³ gal loaded	AP-42 Section 1.5 (lb/hr) ÷ tested loading rate 2015
	SO ₂	0.0052	lbs/10 ³ gal loaded	AP-42 Section 1.5 and Engineering Estimate of 0.2 wt% H ₂ S in VOCs from Vessels (lb/hr) ÷ tested loading rate 2015
	NO _x	7.48E-04	lbs/10 ³ gal loaded	Source test data 2015
	CO	2.01E-04	lbs/10 ³ gal loaded	Source test data 2015
Equipment Leaks (FS02)	VOC & HAPs	AP-42 algorithms for 12-month emission rate calculation	lb/month	EPA-543/R-95-017
Storage Tank Roof Landings and Degassing	VOC & HAPs	AP-42 algorithms for 12-month emission rate calculation	lb/event	AP-42 Section 7.1, API TR 2568
Loadout Fugitives (leaks) (FS03)	VOC	0.017	lbs/10 ³ gal crude oil loaded	AP-42 Section 5.2
		0.0094	lbs/10 ³ gal renewable diesel loaded	

Emissions device or activity	Pollutant	Emission Factor (EF)	EF units	EF Reference
		0.0044	lbs/10 ³ gal ethanol loaded	
	Acetaldehyde	7.22E-05	lbs/10 ³ gal ethanol loaded	1.64% acetaldehyde in VOCs
	VOC	2,538	lb/event	Mass Balance
Process Tank Degassing (FS04)	Acetaldehyde	41.6	lb/event	1.64% acetaldehyde (only applies if tank contents were ethanol)

15.0 PROCESS/PRODUCTION RECORDS

Emissions device or activity	Process or production parameter	Frequency
Marine Vessel Loading	Type and quantity of volatile organic liquid loaded	Monthly
Storage Tank Roof Landings and Degassing	Number of events	Monthly
Process Tank Degassing	Number of events	Monthly

16.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit	O ₂	oxygen
ASTM	American Society for Testing and Materials	OAR	Oregon Administrative Rules
AQMA	Air Quality Maintenance Area	ORS	Oregon Revised Statutes
calendar year	The 12-month period beginning January 1st and ending December 31 st	O&M	operation and maintenance
CAO	Cleaner Air Oregon	Pb	lead
CFR	Code of Federal Regulations	PCD	pollution control device
CO	carbon monoxide	PM	particulate matter
CO _{2e}	carbon dioxide equivalent	PM ₁₀	particulate matter less than 10 microns in size
DEQ	Oregon Department of Environmental Quality	PM _{2.5}	particulate matter less than 2.5 microns in size
dscf	dry standard cubic foot	ppm	part per million
EPA	US Environmental Protection Agency	PSD	Prevention of Significant Deterioration
FCAA	Federal Clean Air Act	PSEL	Plant Site Emission Limit
Gal	gallon(s)	PTE	Potential to Emit
GHG	greenhouse gas	RACT	Reasonably Available Control Technology
gr/dscf	grains per dry standard cubic foot	scf	standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040	SER	Significant Emission Rate
I&M	inspection and maintenance	SIC	Standard Industrial Code
lb	pound(s)	SIP	State Implementation Plan
MMBtu	million British thermal units	SO ₂	sulfur dioxide
NA	not applicable	Special Control Area	as defined in OAR 340-204-0070
NESHAP	National Emissions Standards for Hazardous Air Pollutants	TACT	Typically Achievable Control Technology
NO _x	nitrogen oxides	VCU	Vapor Combustion Unit
NSPS	New Source Performance Standard	VE	visible emissions
NSR	New Source Review	VRU	Vapor Recovery Unit
		VOC	volatile organic compound
		year	A period consisting of any 12-consecutive calendar months