

Public Notice - Hearing

Proposed air quality permit for Columbia Pacific Bio-Refinery

Thursday, April 3, 2014, in Clatskanie OR

DEQ invites the public to attend a public hearing and to comment on a new air quality permit, known officially as a Standard Air Contaminant Discharge Permit.

Who is the applicant?

Cascade Kelly Holdings, LLC
dba Columbia Pacific Bio-Refinery

Permit No. 05-0023-ST-01

Where will the facility be located?

Port of St. Helens' Port Westward Industrial Park
81200 Kallunki Road
Clatskanie, OR 97016

Summary

Cascade Kelly Holdings, LLC, has applied to DEQ for a new Standard Air Contaminant Discharge Permit for a bulk organic liquid products storage and marine vessel loading operation. The liquid products include crude oil and ethanol. The company will do business as Columbia Pacific Bio-Refinery.

The permittee owns an existing permitted ethanol manufacturing facility at the location of this proposed new source. On June 26, 2012, DEQ approved a modification of the existing ethanol plant permit allowing the permittee to receive and transload 50,000,000 gallons of crude oil per year.

DEQ approved the request because it could be performed with existing equipment and emission controls, it resulted in insignificant emissions and was considered an incidental activity.

The permittee significantly increased crude oil storage and loading and now intends to receive and transload as much as 1,839,600,000 gallons per year. Under DEQ rules, the significant expansion of the crude oil storage and transloading operation established a new source of air contaminant emissions for which the permittee must obtain a new permit.

DEQ has additional information about this project on its website here:

<http://www.oregon.gov/deq/Pages/ColumbiaPac/ColumbiaPac.aspx>

How do I participate?

There are several ways to provide public comment.

- Submit a comment online:
<http://www.oregon.gov/deq/Pages/ColumbiaPac/ColumbiaPacComment.aspx>
- Register to provide comment during a specific two-hour time period at a public hearing:
<https://www.eventbrite.com/e/public-hearing-for-proposed-columbia-pacific-bio-refinery-permit-one-registration-per-person-please-tickets-10755192069>
- Walk in sign up at hearing

You can also submit comments for the public record by mail, fax or email, please send them to:

DEQ Northwest Region
Air Quality Permit Coordinator
2020 SW 4th Ave., Suite 400
Portland, OR 97201

Fax: 503-229-6945

Email: NWRAQPermits@deq.state.or.us

Written comments are due by 5 p.m. Friday, April 11, 2014.

Hearing details:

When: Thursday, April 3, 2014

Where: Clatskanie High School
471 Bel Air Dr, Clatskanie, OR 97016

Auditorium:

6 p.m. to 7:30 p.m. Information session and questions and answers

7:30 p.m. to 9:30 p.m. Pre-registered comments; sign up in advance [here](#).

Band Room:

6 p.m. to 9:30 p.m. Walk in comments

Summary of facility operations:

Bulk organic liquid products will be received by rail, transferred to storage tanks and then dispensed to marine vessels. Crude oil and ethanol will be the primary products received, stored and loaded by the facility. Volatile Organic Compound emissions that occur as a result of marine vessel loading will be captured



State of Oregon
Department of
Environmental
Quality

Northwest Region
Air Quality Division
2020 SW 4th Ave., Suite
400
Portland, OR 97201
Permit Writer:
Greg Grunow
Phone: 503-229-5690
800-452-4011
Fax: 503-229-6945

www.oregon.gov/DEQ

Search for "AQ Permits,
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Pacific Bio-Refinery"

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by a vapor collection system and controlled with a vapor recovery unit or thermal oxidizer.

What air pollutants will the permit regulate?

This permit regulates emissions of the pollutants listed in the table at the end of this document.

How does DEQ determine permit requirements?

DEQ evaluates a facility's proposed processes, emission controls, types and amounts of pollutants and plant location, and determines necessary permit requirements according to applicable state and federal regulations.

How does DEQ monitor compliance with the permit requirements?

- The permit will require emission factor verification testing for Volatile Organic Compounds, oxides of nitrogen and carbon monoxide to ensure emission rate calculation accuracy.
- The permit will require the facility perform a variety of compliance monitoring including continuously monitoring the operating temperature of the thermal oxidizer (a pollution control device for volatile organic compound emissions) and regular calculation of facility emissions.
- The permit will require the company compile monitored compliance data into an annual report and submit it to DEQ for compliance evaluation.
- DEQ will perform regular compliance inspections of the facility.

Where can I get more information?

View information about this project online at <http://www.oregon.gov/deq/Pages/ColumbiaPac/ColumbiaPac.aspx>, or contact the DEQ Northwest Region Air Quality Permit Coordinator:

Phone: 503-229-5582 or 800-452-4011

Fax: 503-229-6945

Email: NWRAQPermits@deq.state.or.us

View the application and related documents in person at the DEQ office in Portland or at the

Clatskanie Library District at 11 NE Lillich Street, Clatskanie, OR 97016. For a review appointment at DEQ contact Susan Curry at 503-229-6736 or email; curry.susan@deq.state.or.us

What happens after the public comment period ends?

DEQ will consider and provide responses to all public comments received at the hearing as well as those received throughout the comment period. Following DEQ's review of the public comments, DEQ will issue the facility's air quality permit if the proposed permit action is determined to appropriately address all necessary legal requirements. DEQ may modify provisions in the proposed permit as a result of public comments, but DEQ can only modify permit conditions in accordance with DEQ's rules and statutes. Participation in rulemaking or the legislative process is the only way to change the rules or statutes.

Accessibility information

DEQ is committed to accommodating people with disabilities. Please notify DEQ of any special physical or language accommodations or if you need information in large print, Braille or another format.

To make these arrangements, contact DEQ Communications and Outreach in Portland at 503-229-5696 or call toll-free in Oregon at 800-452-4011; fax to 503-229-6762; or email deqinfo@deq.state.or.us.

People with hearing impairments may call 711.

Spill contingency plan

In a separate action, Columbia Pacific Bio-Refinery has submitted a proposed spill contingency plan to DEQ's Emergency Response Program for review and approval. The plan is scheduled to be on public notice through April 11, 2014.

Spill Contingency Plan Public Notice, which includes a link to the plan: http://www.deq.state.or.us/news/publicnotices/uploaded/140211_1718_RevCPBRpn0211.pdf



Emissions limits

Criteria Pollutants: Table 1 below presents maximum allowable emissions of criteria pollutants for the facility. The proposed emission limit reflects maximum emissions the facility will be able to emit under the proposed permit. Typically, a facility's actual emissions are less than maximum limits established in a permit; however, actual emissions may be emitted up to the permitted limit.

Table 1

Criteria Pollutant	Current Limit (tons/yr)	Proposed Limit (tons/yr)
Particulate matter (total PM)	NA	24
Small particulate matter (PM ₁₀)	NA	14
Fine particulate matter (PM _{2.5})*	NA	9
Nitrogen oxides	NA	39
Sulfur dioxide	NA	39
Carbon monoxide	NA	99
Volatile organic compounds	NA	78
Greenhouse Gas (CO ₂ e)**	NA	74,000

* All particulate matter emitted by the permittee will result from combustion and will be presumed to be PM_{2.5}.

** Greenhouse Gases are not a criteria air pollutant, but they are a regulated air pollutant. The facility will have GHG emissions above the de minimis level, so an emission limit has been included in the permit.

For more information about criteria pollutants, go to: www.epa.gov/air/urbanair/

Hazardous air pollutants:

The Columbia Pacific Bio-Refinery Transloading facility will not have the potential to be a major source of hazardous air pollutants. EPA has not established hazardous air pollutant regulations for such facilities. The following table provides estimates of the proposed facility's hazardous air pollutants emissions.

Table 2

Hazardous Air Pollutants	Potential Emissions (tons/yr)
Highest individual HAP = n-hexane	1.44 (the only HAP > 1 ton/yr)
All other individual HAPs	< 1
Total HAPs (combined)	3.8

For more information about hazardous air pollutants, go to: www.epa.gov/ttn/atw/hlthef/hapindex.html





State of Oregon
Department of
Environmental
Quality

Standard AIR CONTAMINANT DISCHARGE PERMIT REVIEW REPORT

Department of Environmental Quality

Northwest Region

Cascade Kelly Holdings, LLC

dba Columbia Pacific Bio-Refinery - Transloading Facility

Source Information:

SIC	5171, 5169, 4491
NAICS	424710, 424690, 488320

Source Categories (Table 1 Part, code)	B, 48 C, #4
Public Notice Category	III

Compliance and Emissions Monitoring Requirements:

FCE	
Compliance schedule	
Unassigned emissions	
Emission credits	
Special Conditions	

Source test	X
COMS	
CEMS	
PEMS	
Ambient monitoring	

Reporting Requirements

Annual report (due date)	Feb 15th
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	Std
Other (specify)	

Air Programs

Synthetic Minor (SM)	
SM -80	
NSPS (list subparts)	Kb
NESHAP (list subparts)	
Part 68 Risk Management	
CFC	

NSR	
PSD	
RACT	
TACT	X
Other (specify)	

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PERMITTING

PERMITTEE IDENTIFICATION

1. Cascade Kelley Holdings, LLC dba
Columbia Pacific Bio-Refinery - Transloading Facility
81200 Kallunki Rd.
Clatskanie, OR 97016-2244

PERMITTING ACTION

2. The proposed permit is a new permit for a new source.

OTHER PERMITS

3. Other permits issued or required by the Department of Environmental Quality for this source include:

General NPDES permit 1200-Z (storm water permit)
Water Pollution Control Facilities Permit 102666

ATTAINMENT STATUS

4. The proposed source is located in an area that is in attainment with the National Ambient Air Quality Standards for all pollutants.
5. The source is not located within 10 kilometers of a Class I Air Quality Protection Area.

SOURCE DESCRIPTION

OVERVIEW

6. The permittee, Cascade Kelly Holdings, LLC, dba Columbia Pacific Bio-Refinery, proposes to establish and operate a bulk organic liquid products storage and marine vessel loading operation at 81200 Kallunki Road, Clatskanie, Oregon. Bulk organic liquid products will be received by rail, transferred to storage tanks and then dispensed to marine vessels. Crude oil and ethanol will be the primary products stored and loaded by the facility.

The permittee owns an existing permitted ethanol manufacturing facility (permitted under Standard ACDP 05-0006-ST-01) at the location of this proposed new source. The ethanol facility was built in 2008 to conduct grain processing and ethanol manufacturing. Ethanol manufacturing is presently not being performed. The ethanol manufacturing

facility includes equipment and activities common to Marine Vessel Petroleum Loading and Unloading (e.g., bulk product storage tanks, barge loadout operations, associated emission controls). On June 26, 2012 DEQ approved a modification of the permit for the ethanol plant (ACDP 05-0006-ST-01) allowing the permittee to receive and transload 50,000,000 gallons of crude oil per year. DEQ approved this request because the action resulted in de minimis or insignificant emissions and could be performed with existing equipment and emission controls.

This review report is for a new permit that is now proposed because the permittee intends to significantly increase crude oil and/or ethanol storage and loading to as much as 1,839,600,000 gallons per year. This action will result in the permittee establishing and operating a new “major source” of air contaminant emissions for the activity “Marine Vessel Petroleum Loading and Unloading” (see Compliance discussion in Item 9, below). Marine Vessel Petroleum Loading and Unloading (SIC - 5171) is not a support activity of ethanol manufacturing (SIC - 2869) and is a unique source category referenced in Table 1 of OAR 340-216-0020; the two activities lie within different SIC major groups (51 and 28); therefore, pursuant to Oregon rules the permittee is establishing a new source and is required to obtain a new permit to operate and build out the facility*. If or when the ethanol manufacturing facility commences operation and following issuance of this permit, some equipment and activities (storage tanks TK6105 & TK6106, barge loadout operations, associated emission controls) will be shared by the two permitted facilities.

***Note: This new permit and review report identify multiple SIC codes (5171, 5169 and 4491) with the new transloading facility that are associated across different SIC major groups (51 and 44). This is for activity identification purposes only. Since the SIC 4491 activity is supporting of the SIC 5171 and 5169 activities the transloading facility is considered a single source under Oregon rules.**

PROCESS AND CONTROL DEVICES

7. Air contaminant sources at the facility will consist of the following:

Existing sources:

- a. Two (2) – 3,800,000 gallon (TK6105 & TK6106) volatile organic liquid storage tanks, each with internal floating pan and liquid mounted primary seal to control emissions; constructed in 1976. These tanks will be shared with the existing ethanol manufacturing facility and at any time one or both may be in ethanol service in support of the ethanol manufacturing facility.
- b. One (1) – Marine vessel loadout operation with emissions (VOC) controlled by one (1) – loadout vapor recovery unit (John Zink).
- c. Fugitive emission sources:
 - i. Equipment fugitives associated with product receipt (railcar off loading/tank farm).
 - ii. Equipment fugitives associated with product loadout to marine vessels (VOC).

Future sources:

- d. Four (4) - 4,500,000 gallon (TK6153 - TK6156) volatile organic liquid storage tanks, each with internal floating roof equipped with liquid mounted primary seal and rim mounted secondary to control emissions.
- e. Two (2) - 36,000 gallon, high pressure, fixed roof Railcar Unloading Tanks (TK6151 and TK6152).
- f. One (1) - Jordan CEB 4800 (CE01/EU02), 163.6 MMBtu/hr, propane fired Thermal Oxidizer with low NO_x/CO burner. The proposed control device will replace the existing John Zink Loadout vapor recovery unit. The oxidizer will have a design operating temperature of 2,200 °F with an expected VOC destruction efficiency of 99.5%. The Jordan CEB 4800 consists of a group of four individual oxidizer units that are grouped together. The units can be scaled into operation from one to all four units depending on operational load providing the Jordan CEB 4800 a thermal capacity range of 4 to 163.6 MMBtu/hr.

CONTINUOUS MONITORING DEVICES

8. The facility will be required to continuously monitor and record the operating temperature of the Jordan CEB 4800 vapor combustion unit.

COMPLIANCE

9. On June 04, 2012, the permittee applied to DEQ to additionally receive and transload (rail to marine vessel) a maximum of 50,000,000 gallons of crude oil per year under the permit for its ethanol manufacturing facility (Standard ACDP 05-0006-ST-01). The proposed transloading activity would not require installation of new equipment and associated emissions would be less than DEQ's *de minimis* emission rate threshold (1 ton/yr). Based on the information stated in the application, DEQ's review deemed the transloading activity to be incidental, and DEQ approved the request in a permit modification issued on June 26, 2012. Afterward, DEQ found that beginning the month of March 2013, the permittee had engaged in crude oil transloading in quantities that significantly exceed the 50,000,000 gallons per year applied for and approved by DEQ. Under DEQ rules this action allegedly resulted in the permittee establishing and operating a new "major source" of air contaminant emissions for the activity Marine Vessel Petroleum Loading and Unloading. Since Marine Vessel Petroleum Loading and Unloading is not a support activity of ethanol manufacturing and is a unique source category referenced in Table 1 of OAR 340-216-0020, the permittee is required to obtain a new permit to operate at the elevated transloading levels prior to establishing the new major source. Operating a new major source without first obtaining the required permit is identified as a Class I violation in DEQ rules.

DEQ has commenced a formal enforcement action to address the alleged violation identified above (PEN No. PE-POR-AQ-2014-0001). The enforcement action, which is being contested, remains in process and had not been finalized at the time of this permit action.

10. The facility will be inspected by DEQ personnel to ensure compliance with permit conditions.

EMISSIONS

11. Proposed PSEL information:

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limits (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
PM/PM ₁₀ /PM _{2.5}	0	NA	0	NA	9	9
SO ₂	0	NA	0	NA	39	39
NO _x	0	NA	0	NA	39	39
CO	0	NA	0	NA	99	99
VOC	0	NA	0	NA	78	78
GHG (CO _{2e})	0	NA	0	NA	74,000	74,000

- The proposed PSEL for each pollutant except VOC has been set equal to the respective Generic PSEL in accordance with OARs 340-216-0066(3)(b) and 340-222-0040.
- The netting basis is zero for all pollutants in accordance with OAR 340-200-0020(76).
- The VOC PSEL has been set at 78 tons per year which is 38 tons above the significant emission rate (SER) for that pollutant (see SER analysis in Item 12, below).
- All particulate matter generated by the permittee's process is a residual product of the combustion process and is presumed to be PM_{2.5}. All PM will be presumed to be PM_{2.5} unless the permittee performs testing to distinguish particle size distributions and test results demonstrate larger PM as a component of emissions.
- Maximum pollutant emission rates were estimated based on an assumed maximum throughput of 25,000 barrels/hr marine vessel loading rate (1 barrel = 42 gallons: 25,000 barrels/hr = 1,050,000 gal/hr); 120,000 barrels per day (120,000 barrels per day = 1.84 billion gallons per year). The permittee may receive, store and transload a variety of volatile organic liquids; maximum

emission rates were established by assuming all product throughput to be crude oil with Reid vapor pressure (RVP) of 12.75 psi; a representative RVP of Bakken crude oil. Displaced organic vapors from marine vessel loading will be captured and combusted in a Vapor Combustion Unit for emissions control. The combustion process will result in the emission of pollutants that are the products of combustion. Based on these assumptions the facility’s maximum emissions of criteria pollutants are estimated to be approximately: 4 tons PM_{2.5}/yr, 5 tons SO₂/yr, 12 tons NO_x/yr, 5 tons CO /yr and 78 tons VOC /yr.

- f. The facility will emit GHGs above the de minimis emission level of 2,756 tons/year (2,500 metric tonnes/year), so the permit includes the Generic PSEL for GHG.
- g. The emission rate for H₂S was estimated to be below the de minimis emission level, therefore a PSEL is not included in the permit for this pollutant.
- h. This is a new permit; there have been no previous PSELs.
- i. The PSEL is a federally enforceable limit on the potential to emit.

SIGNIFICANT EMISSION RATE ANALYSIS

- 12. For PM_{2.5}, SO₂, NO_x, CO, and GHG, the proposed Plant Site Emission Limits are less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.
- 13. For VOC, an analysis of the proposed PSEL increase over the Netting Basis is shown in the following table.

Pollutant	SER (tons/yr)	Requested increase over netting basis (tons/yr)	Increase due to utilizing capacity that existed in baseline period (tons/yr)	Increase due to physical changes or changes in method of operation (tons/yr)	Increase due to changes to rules (i.e., change to Generic PSEL) (tons/yr)
VOC	40	78	NA	78	NA

- 14. The permittee requested a VOC PSEL of 78 tons per year which is greater than the 40 ton per year VOC significant emission rate (SER) defined in Table 2 of OAR 340-200-0020, “General Air Quality Definitions.” Sources or facilities that emit, or have the "potential to emit”, any regulated air pollutant at or above a Significant Emission Rate are defined in OAR 340-200-0020(72) to be a “major source” of air contaminant emissions in Oregon. Although a major source, the permittee’s facility did not fall subject to the requirements of OAR 340-224, “Major New Source Review (NSR/PSD),” because it is located in an area that is in attainment with all National Ambient Air Quality Standards and the requested VOC PSEL is less than the Federal Major Source threshold of 100 tons per year.

Since the permittee's requested VOC PSEL is greater than the SER, in accordance with OAR 340-222-0041(b)(B) "*Criteria for Establishing Plant Site Emission Limits*" and the "*Air Quality Analysis Requirements*" of OAR 340-225-0090, the permittee was required to perform an Ozone Precursor Distance calculation [see OAR 340-225-0020(10)] to determine if the emissions from the proposed source could impact the Portland Vancouver Air Quality Maintenance Area, and so trigger the requirement for emission offsets. The Ozone Precursor Distance was determined to be 58.5 km. The permittee's facility is 61.2 km from the Portland Vancouver Ozone Maintenance Area, so emission offsets are not a requirement of this permit action.

TITLE V MAJOR SOURCE APPLICABILITY

CRITERIA POLLUTANTS

15. A major source for Title V Permit applicability is a facility that has the potential to emit 100 or more tons/yr of any criteria pollutant. The potential to emit for each criteria pollutant at this facility is less than 100 tons per year. This facility is not a major source of criteria pollutant emissions for Title V permitting purposes.

GHG POLLUTANTS

16. A major source for Title V Permit applicability is a facility that has the potential to emit 100,000 or more tons/yr of CO₂e Greenhouse Gas emissions. The facility's annual throughput of volatile organic liquids is being limited to 1,839,600,000 gallons. At this throughput the permittee's potential to emit greenhouse gases (emission rate based on crude oil) is estimated to be 68,814 tons CO₂e per year. This emission rate is based on the annual combustion of 1,012,457 MMBtu/yr (propane) in the vapor combustion unit and fugitive GHG sources (tanks, product loadout, equipment leaks) for an associated GHG emission factor of 12557.8 lb GHG/10³ gallons of volatile organic liquid (VOL) loaded (factor determined in accordance with federal protocols of 40 CFR 98 Tables C-1 & C-2). The potential to emit CO₂e at this facility is less than 100,000 tons per year. This facility is not a major source of GHG emissions.

HAZARDOUS AIR POLLUTANTS

17. A major source for hazardous air pollutants (HAP) is a facility that has the potential to emit 10 or more tons/year of any single HAP or 25 or more tons/year of combined HAPs. This source is not a major source of hazardous air pollutants. Provided below is a summary of the HAP emissions.

Hazardous Air Pollutant	Potential to Emit (tons/year)
Highest individual HAP – n-hexane	1.44 (only HAP > 1 ton/yr)
All other individual HAPs	< 1
Total HAPs (combined)	3.8

ADDITIONAL REQUIREMENTS

NSPS APPLICABILITY

18. 40 CFR Part 60, Subpart Kb – “*Standards of Performance for Volatile Organic Liquid (VOL) Storage Vessels for Which Construction, Reconstruction or Modification Commenced after July 23, 1984,*” is applicable at the proposed source because it will store volatile organic liquid products in storage vessels that are affected facilities under this federal standard. Tanks affected by this federal standard include TK6105 and TK6106 (based on previous applicability determination); and TK6153 through TK6156. The proposed Railcar Unloading Tanks TK6151 and TK6152 will not be subject to this standard because they will meet exemption criteria of the standard as they will serve as “process tanks” (surge control vessels) and will be pressure vessels designed to operate in excess of 204.9 kPa [29.7 psi] without emissions to the atmosphere.
19. 40 CFR Part 60, Subpart XX – “*Standards of Performance for Bulk Gasoline Terminals,*” is not applicable to the proposed source because the facility will not be in gasoline service and will therefore not function as an affected facility regulated by this federal standard.
20. 40 CFR Part 60, Subpart OOOO – “*Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution,*” is not applicable to the proposed source because it does not include any of the affected facilities regulated under this federal standard.

NESHAPS/MACT APPLICABILITY

21. There are no sources at this facility for which NESHAPs/MACT standards are applicable:
- a. 40 CFR Part 63, Subpart Y – “*National Emission Standards for Marine Tank*

Vessel Loading Operations,” is not applicable to the proposed source because the standard is only applicable to major sources (see discussion in Items 15-17, above).

- b. The facility will not be in gasoline service and will therefore not function as an affected facility regulated by any of the following federal standards associated with gasoline:
 - i. 40 CFR Part 63, Subpart R – “*National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations).*” In addition, this standard is only applicable to major sources.
 - ii. 40 CFR Part 63, Subpart BBBB – “*National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities.*”
- c. 40 CFR Part 63, Subpart HH – “*National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities*” is not applicable to the proposed source because the facility is not an Oil or Natural Gas Production facility.
- d. 40 CFR Part 63, Subpart EEEE – “*National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*” is not applicable to the proposed source because the standard is only applicable to major sources (see discussion in Items 15-17, above).

RACT APPLICABILITY

22. The RACT rules are not applicable to this source because it is not in the Portland AQMA, Medford AQMA, or Salem SKATS.

TACT APPLICABILITY

23. The source will meet the State’s TACT/Highest and Best Rules by conducting the following activities:
 - a. Upon receipt, crude oil will be offloaded from railcars into high-pressure vessels to prevent volatilization before transfer into bulk storage tanks.
 - b. VOC emissions that occur from vapor space displacement during marine vessel loading will be captured by a vapor collection system and controlled with a vapor recovery unit or thermal oxidizer. The thermal oxidizer will operate with an operating temperature of 2,200°F and rated control efficiency of 99.5%.
 - c. Although 40 CFR Part 60, Subpart XX – “*Standards of Performance for Bulk Gasoline Terminals,*” (a federal New Source Performance Standard with the regulatory intent of minimizing the emissions of VOC at bulk gasoline terminals

through the application of best demonstrated technologies) is not applicable to the proposed source, the proposed facility incorporates similar vapor collection and control methodologies as those required in the federal standard. Therefore, the proposed facility is expected to achieve similar levels of VOC emissions reduction.

SOURCE TESTING

PROPOSED TESTING

24. The John Zink vapor recovery unit may be tested at least once during the permit term for VOC and HAP emissions. The testing of the VRU is only required if the permittee should choose to delay installation of the Jordan CEB 4800 vapor combustion unit (VCU identified to be replacement for the VRU). Refer to the permit for the source testing schedule, methods and process/control device operating parameters that are to be followed and/or recorded during the tests.
25. Following its installation, the Jordan CEB 4800 vapor combustion unit will be tested annually during the permit term for NO_x, CO, and VOC emissions. Refer to the permit for the source testing schedule, methods and process/control device operating parameters that are to be followed and/or recorded during the tests.

PUBLIC NOTICE

26. Pursuant to OAR 340-216-0066(4)(a)(A), "Issuance Procedures for Standard Air Contaminant Discharge Permits," the Department is required to provide public notice in accordance with OAR 340-209-0030(3)(c) for this proposed permit action. Accordingly, the Department must provide public notice of this proposed permit action sufficient to allow a minimum of 35 days for interested persons to submit written comments on the proposed permit action. The public notice procedures also include criteria to allow interested persons to request a public hearing in which to submit oral or written comments. In this instance the permittee elected to proceed directly to a Public Hearing.

The public notice was mailed on Feb. 28, 2014 marking the beginning of the public comment period. The Department will hold the public hearing on April 03, 2014 at Clatskanie High School. Written comments may be submitted up to the end of the public comment period which ends at 5:00 pm on Friday, April 11, 2014.



State of Oregon
Department of
Environmental
Quality

STANDARD AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, #400
Portland, Oregon 97201
(503) 229-5554

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 No.: 027492
Date Received: 08/29/2013

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: 10/08/2013

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

David Monro, Northwest Region Air Quality Manager

Dated

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-0020):

Table 1 Code	Source Description	SIC (NAICS)
Part B, 48	Marine Vessel Petroleum and Ethanol Loading and Unloading	5171, 5169, 4491 (424710) (424690) (488320)
Part C, #4	Sources subject to a NSPS – Subpart Kb for Standards of Performance for Volatile Organic Liquid Storage Vessels	

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1.0 GENERAL EMISSION STANDARDS AND LIMITS

- 1.1. Visible Emissions** Emissions from any air contaminant source must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour.
- 1.2. Particulate Matter Emissions** Particulate matter emissions from any air contaminant source must not exceed 0.1 grains per standard cubic foot.
- 1.3. Fugitive Emissions** The permittee must take reasonable precautions to prevent fugitive dust emissions by:
- a. Treating vehicular traffic areas of the plant site under the control of the permittee.
 - b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.
 - c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.
- 1.4. Particulate Matter Fallout** The permittee must not cause or permit the emission 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. DEQ will verify that the deposition exists and will notify the permittee that the deposition must be controlled.
- 1.5. Nuisance and Odors** The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by DEQ personnel.
- 1.6. Fuel Usage** The permittee must not use any fuel other than natural gas, propane or butane in the facility's Marine Vessel Loadout Vapor Combustion Unit.

2.0 SPECIFIC PERFORMANCE AND EMISSION STANDARDS

- 2.1. 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.
- 2.2. NSPS Subpart Kb - Standards of** The permittee must comply with all applicable provisions of 40 CFR Subpart Kb, including but not limited to the following, for

Performance for Volatile Organic Liquid (VOL) Storage Vessels for Which Construction, Reconstruction or Modification Commenced after July 23, 1984

each affected storage vessel (Note – refer to 40 CFR Subpart Kb and/or 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:

2.2.b.(i)(a) Each storage vessel must have a fixed roof in combination with an internal floating roof meeting the following specifications:

2.2.b.(i)(a)(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.

2.2.b.(i)(a)(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:

2.2.b.(i)(a)(2)1 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.

2.2.b.(i)(a)(2)2 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.

2.2.b.(i)(a)(2)3 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.

2.2.b.(i)(a)(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.

2.2.b.(i)(a)(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.

2.2.b.(i)(a)(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.

2.2.b.(i)(a)(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.

2.2.b.(i)(a)(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.

2.2.b.(i)(a)(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.

2.2.b.(i)(a)(9) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

- 2.3. 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 receipt (e.g., railcar offloading).
- 2.4. 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.
- 2.5. Marine Vessel Loading Vapor Collection** The permittee must comply with the following marine vessel loading vapor collection requirements:
- a. The permittee must design and operate its marine vessel vapor collection system to collect displaced VOC vapors during the loading of marine tank vessels.

- b. The permittee is prohibited from loading volatile organic liquid product onto any marine vessel that is not equipped with a compatible vapor collection system.
- c. All displaced VOC vapors collected during any loading event must be vented only to the in service control device.
- d. All hatches, pressure relief valves, connections, gauging ports and vents associated with the loading of volatile organic liquid product onto marine tank vessels must be maintained to be leak free and vapor tight at the time of loading.

2.6. 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.

2.7. Vapor Combustion Unit Operating Conditions

Vapor Combustion Unit EU02 (VCU) must be designed and operated as follows:

- a. The exhaust stack of the VCU must be designed and configured to comply with EPA's test Method 1 and appropriately equipped with sample ports for sample and velocity traverses while source testing.
- b. A temperature monitoring system must be installed to continuously monitor and record the operating temperature in the combustion zone of the VCU. Temperature data points must be logged at least every 5-minutes, during all hours of device operation.
- c. The operating temperature of the VCU must be maintained as follows:
 - i. Prior to performance of the initial source test, the operating temperature of the VCU must be maintained at a minimum of 2200 °F;
 - ii. After the performance of the initial source test, the operating temperature of the VCU must be maintained at a minimum of the average operating temperature recorded during the most recent valid source test.
 - iii. The above operating temperatures are based on a one hour average.
- d. The VCU must be operated at all times when marine vessel loading is being performed.

- e. The VCU must be equipped with a process interlock that halts volatile organic liquid loading during VCU 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 Vapor Combustion Unit EU02.

2.8. VCU Visible Emissions Monitoring

The permittee must regularly perform visible emissions determinations of the VCU's stack exhaust gas emissions, as specified below:

- a. Visible emissions monitoring must be performed in accordance with the procedures of EPA Method 22 (non-certified reader method) following the following schedule.
 - i. Daily Method 22 Testing - Perform a visual emissions determination once per day, on each day the process 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. Conduct each Method 22 test while the facility is operating under normal conditions.
- c. The duration of each Method 22 test must be at least 15 minutes.
- d. Visible emissions will be considered to be present if detected for more than three minutes of the fifteen minute period.
- e. If visible emissions are detected:

- 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 operating under normal conditions.
- iii. Notify DEQ (see Condition 8.4) 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 it is the permittee's responsibility to treat the incident as a monitoring event in accordance with the corresponding schedule to which the permittee is subject and follow procedures identified above.

2.9. Vapor Recovery Unit Operating Conditions

Until the VCU is installed and operational, the Vapor Recovery Unit (VRU) must be operated as follows:

- a. The VRU must be operated at all times when marine vessel loading is being performed.
- b. The VRU must be equipped with a process interlock that halts volatile organic liquid loading during VRU malfunction or upset condition events.

3.0 OPERATION AND MAINTENANCE REQUIREMENTS

3.1. Process Leak Detection Program

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

- a. 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:

- i. 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;
- ii. The monthly inspection is to be done by evaluating the components using Method 21;
- iii. Each detection of a leak shall be recorded. A leak is detected whenever a measured concentration of 10,000 ppm or greater is detected;
- iv. 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;
- v. Leaking components must be repaired within 15 days;
- vi. 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.
- vii. Leaking components that are taken out of service by isolation and bypass are not required to be reported to the Department as required by Condition 3.1.a.vi.
- viii. The Department may require submission of an excess emission report in accordance with Condition 7.1 for reported leaking components.

3.2. 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. This information must be re-submitted to DEQ any time modifications are made to procedures affecting the permittee's Vapor Collection System.

3.3. 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. A copy of the manufacturer’s O&M specifications must be maintained on-site and available for inspection and reference.

3.4. Vapor Combustion Unit O&M The permittee must operate and maintain the Jordan CEB 4800 VCU in accordance with manufacturer’s specifications while the unit is the in-service VOC abatement device for marine vessel loading. A copy of the manufacturer’s O&M specifications must be maintained on-site and available for inspection and reference.

4.0 PLANT SITE EMISSION LIMITS

4.1. Plant Site Emission Limits (PSEL) Plant site emissions must not exceed the following:

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

*All emitted PM is presumed to be PM_{2.5}.

**note: GHG is expressed in standard tons (2000 lbs/ton) for PSEL compliance purposes; not metric tonnes as in GHG reporting requirements

4.2. Emission Limitation Period The annual plant site emissions limits apply to any 12-consecutive calendar month period.

5.0 COMPLIANCE DEMONSTRATION

5.1. 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. § 60.113b Testing and procedures.

- i. After installing the control equipment required to meet Condition 2.2.b.(i)(a) of the permit [§60.112b(a)(1)] (permanently affixed roof and internal floating roof), the permittee must:

- 5.1.a.(i)(a) 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.

- 5.1.a.(i)(b) 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 7.2.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.

5.1.a.(i)(c) For vessels equipped with a double-seal system as specified in Condition 2.2.b.(i)(a)(2)2) of the permit [§60.112b(a)(1)(ii)(B)]:

5.1.a.(i)(c)(1) Visually inspect the vessel as specified in paragraph 5.1.a.(i)(d) of this section at least every 5 years; or

5.1.a.(i)(c)(2) Visually inspect the vessel as specified in paragraph 5.1.a.(i)(b) of this section.

5.1.a.(i)(d) 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 5.1.a.(i)(b) and 5.1.a.(i)(c)(2) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph 5.1.a.(i)(c)(1) of this section.

5.1.a.(i)(e) 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 5.1.a.(i)(a) and 5.1.a.(i)(d) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by

paragraph 5.1.a.(i)(d) 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.

5.2. PSEL Compliance Monitoring

Compliance with the PSELs of Condition 4.1 is determined for each 12-consecutive calendar month period based on the following calculations (except GHG - see condition 5.4 for GHG PSEL compliance monitoring):

$$E_{12-Mo} = \sum \frac{(12\text{-consecutive } E_{Mo})}{2000}$$

$$E_{Mo} = \sum (P \times EF)$$

Where:

E_{12-Mo} = emissions of an air pollutant in tons/yr for a respective 12-month period.

E_{Mo} = emissions of an air pollutant (in lbs) for a respective calendar month period.

P = process monitoring parameter for the respective calendar month period identified (see Condition 12.0).

EF = emission factor identified for a process/monitoring parameter and pollutant (see Condition 12.0).

5.3. Emission Factors

The permittee must use the default emission factors provided in condition 12.0 for calculating pollutant emissions, unless alternative emission factors are approved 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.

- 5.4. Greenhouse gas emissions** The permittee must determine its GHG emissions in accordance with the methods/protocols identified in OAR 340-215.
- 5.5. Source Testing** The permittee must conduct source testing of the facility's VOC abatement unit stack exhaust gas for compliance and emission factor verification. Testing must be performed as specified below:
- a. Schedule of required tests:
 - i. The permittee must conduct an initial source test of the John Zink VRU within 90 days after permit issuance. During the test, the unit's stack exhaust gas must be tested for VOC and HAP emissions. Testing of the VRU is not required if the device will be replaced by the VCU within 6 months of permit issuance.
 - ii. The permittee must conduct an initial source test of the Jordan CEB 4800 VCU within 90 days after the VCU enters service. During the test, the unit's stack exhaust gas must be tested for NO_x, CO, and VOC emissions.
 - iii. Following completion of the initial performance testing identified above, the permittee must conduct subsequent source tests of the in-service VOC abatement unit once each calendar year. In each test the abatement unit's stack exhaust gas must be tested for the pollutants respectively identified above unless otherwise approved by DEQ. Tests are to be performed approximately one year from the most recent valid source test.
 - b. The Department may approve an extension of a testing deadline stated above if the permittee provides adequate justification for the extension. The Department may require an extension if the facility's operating capacity appears insufficient to provide representative emission data.
 - c. During the source tests, stack exhaust gas must be sampled while the facility is operating at approximately its maximum normal operating capacity.
 - d. Each 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.
- e. The following parameters must be monitored and recorded during the source test:
 - i. Quantity (in gallons) of crude oil loaded;
 - ii. VRU carbon bed cycle time;
 - iii. Operating temperature of the VCU, expressed as one-hour averages;
 - iv. Visible emissions (VCU only) 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;
 - v. Other facility/process operating parameters identified prior to the test.
 - f. Test results should report measured emissions as ppmvd, lb/hr, and lb/10³ gallon of product loaded.
 - g. All tests must be conducted in accordance with the Department's Source Sampling Manual and the approved pretest plan. The pretest plan must be submitted at least 30 days prior to the intended test date and approved by the Regional Source Test Coordinator and/or Permit Writer. Test data and results must be submitted to DEQ for review within 45 days of test completion unless otherwise approved in the pretest plan. See Condition 8.4 for appropriate address to submit test plans/reports.
 - 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.

Tested Pollutant	Reference Test Method ⁽¹⁾
NOx	EPA Method 7E
CO	EPA Method 10
VOC	EPA Method 18, 25, 25A
HAPs	Method TBD
Opacity	EPA Method 9

⁽¹⁾ Substitution of alternative test method(s) must be approved by DEQ.

6.0 MONITORING/RECORDKEEPING REQUIREMENTS

6.1. NSPS Subpart Kb The permittee must comply with all applicable monitoring and recordkeeping requirements of 40 CFR Subpart Kb (see § 60.116b Monitoring of operations and § 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. Available data on the storage temperature may be used 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:
 - 6.1.c.(ii)(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 §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).
 - 6.1.c.(ii)(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:
 - 6.1.c.(iii)(a) May be obtained from standard reference texts, or
 - 6.1.c.(iii)(b) Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or
 - 6.1.c.(iii)(c) Measured by an appropriate method approved by the Administrator; or
 - 6.1.c.(iii)(d) Calculated by an appropriate method approved by the Administrator.
- d. After installing the control equipment required to meet Condition 2.2.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 5.1.a.(i)(a) , 5.1.a.(i)(b) , 5.1.a.(i)(c) , and 5.1.a.(i)(d) (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).

- 6.2. Continuous Monitoring - Vapor Combustion Unit EU02** The permittee must continuously monitor and record the operating temperature in the combustion zone of the Vapor Combustion Unit EU02. Temperature data points must be logged at least every 5-minutes, during all hours of device operation. Monitored data must be reduced to demonstrate the average hourly operating temperature of the unit.
- 6.3. Operation and Maintenance Monitoring-Recordkeeping** The permittee must maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices:

Monitored Parameter		Monitoring Frequency
a.	Maintain a record of each marine vessel arrival and loading event including signed-off records of the standard operating procedures identified in Condition 3.2.	Each Event
b.	Quantity (gallons) and type of VOL received into storage (measurement not to include ethanol manufactured on site).	Monthly - Each Receipt
c.	Quantity (gallons) and type of VOL loaded onto marine vessels (measurement not to include ethanol manufactured on site).	Monthly
d.	Roof landing events for each VOL storage tank.	Each Occurrence
e.	Process tank (TK6151 and TK6152) degassing and refilling (after drawdown) events.	Each Occurrence
f.	Quantity of propane (gallons, MMBtu) combusted in Vapor Combustion Unit EU02.	Monthly
g.	The permittee must monitor and maintain records documenting the performance of each EPA Method 22 visible emissions test and any associated corrective actions performed, as required by Condition 2.8.	Daily/Weekly/Monthly per Condition
h.	Results of the monthly leak detection evaluation required in Condition 3.1.a: <ul style="list-style-type: none"> i. Date of inspection; ii. Findings – identification of leaking component, location, nature and severity (instrument 	Monthly

<p>reading) of each leak; or indicate no leaks;</p> <p>iii. Corrective action - for each detected leak record the corrective action performed and date of repair;</p> <p>iv. Maintain a record of each leaking component report submitted to DEQ as required by Condition 3.1.a.vi.</p>	
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<p>i. Using the compliance calculation procedures from Condition 5.2, perform a calculation of emissions for each pollutant type for which there is a PSEL, to demonstrate compliance with the rolling 12-month PSEL limitations of Condition 4.1 (see Condition 6.3.j for GHG specific monitoring requirements).</p>	Monthly
<p>j. The permittee must monitor and maintain 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).</p>	Monthly
<p>k. Record of the monthly average True Vapor Pressure of each volatile organic liquid product stored consistent with Condition 6.1.b.</p>	Monthly
<p>l. The permittee must maintain records of O&M activities performed in accordance with manufacturer's specifications for the John Zink VRU as required in Condition 0.</p>	As Required
<p>m. The permittee must maintain records of O&M activities performed in accordance with manufacturer's specifications for the Jordan CEB 4800 VCU as required in Condition 3.4.</p>	As Required
<p>n. Record major maintenance performed on air pollution control equipment.</p>	Each Occurrence

6.4. Excess Emissions

The permittee must maintain records of excess emissions 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 for 3 minutes or more in any 60-minute period. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must cease operation of the

equipment or facility no later 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).

6.5. Complaint Log

The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility.

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.

6.6. Retention of Records

Unless otherwise specified, all records must be maintained on site for a period of two (2) years and made available to DEQ upon request.

7.0 REPORTING REQUIREMENTS

7.1. 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. 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 8.3 by email, telephone, facsimile, or in person.
- b. If the excess emissions occur during non-business hours, the permittee must notify DEQ by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.
- c. The permittee must also submit follow-up reports when required by DEQ.

7.2. 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 5.1.a.(i)(b) 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 5.1.a.(i)(c) 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 5.1.a.(i)(c)(2) [§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 §61.112b(a)(1) or §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 5.1.a.(i)(e) , prior to the filling or refilling of each storage vessel for which an inspection is required by Conditions 5.1.a.(i)(a) and 5.1.a.(i)(d) a.

7.3. Annual Report

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

- a. 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.
- b. Quantity (gallons) of crude oil transloaded onto marine vessels.
- c. Quantity (gallons) of ethanol (from external source - not manufactured on site) transloaded onto marine vessels.
- d. Quantity (gallons) and type of other volatile organic liquids transloaded onto marine vessels.
- e. Quantity of propane (gallons, MMBtu) combusted in the VCU.
- f. A summary of the rolling 12-month PSEL emission rate calculations determined each month in accordance with Condition 6.3.i.
- g. Provide a calculation of annual greenhouse gas emissions, performed in accordance with Condition 5.4 (identify method of calculation), to demonstrate compliance with the GHG PSEL in Condition 4.1. This information may be reported separately (by March 31st) to coincide with GHG report requirements of OAR 340-215.

- h. Records of all planned and unplanned excess emissions events.
 - i. Summary of complaints relating to air quality received by permittee during the year.
 - j. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.
 - k. List major maintenance performed on pollution control equipment.
- 7.4. Greenhouse Gas Registration and Reporting** The permittee must register and report its greenhouse gas emissions with DEQ in accordance with OAR 340-215.
- 7.5. Notice of Change of Ownership or Company Name** The permittee must notify DEQ in writing using a Departmental “Permit 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.
- 7.6. Construction or Modification Notices** The permittee must notify DEQ in writing using a Departmental “Notice of Construction Form,” or “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.
- 7.7. Where to Send Reports and Notices** The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 8.3.

8.0 ADMINISTRATIVE REQUIREMENTS

- 8.1. Permit Renewal Application** **The completed application package for renewal of this permit must be submitted to DEQ at least 60 days prior to the date of permit expiration.** Two (2) copies of the application must be submitted to the DEQ Permit Coordinator listed in condition 8.3.
- 8.2. Permit Modifications** Application for a modification of this permit must be submitted not less than **60** days prior to the source modification. 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 Business Office of the Department (see Condition 9.4).
- 8.3. Permit Coordinator Address** All notices and applications (not requiring associated fees) should be sent to the attention of the Permit Coordinator of the Department's Northwest Regional Office. The address is as follows:
- Department of Environmental Quality
Attn: AQ Permit Coordinator
Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
Telephone: (503) 229-5582
- 8.4. DEQ Regional Office** Unless otherwise notified, submit all reports (source test plans and source test reports; annual, semi-annual, etc.) to the DEQ office noted below.
- Department of Environmental Quality
Northwest Region - AQ Section
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
503-229-5263
- 8.5. Department Contacts - General** All inquiries about this permit should be directed to the regional office identified in Condition 8.4
- 8.6. Department Contacts - Internet** Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at www.oregon.gov/deq

8.7. EPA Administrator Address US Environmental Protection Agency
Director, Air and Waste Management Division
1200 Sixth Avenue
Seattle, WA 98101

9.0 FEES

- 9.1. Annual Compliance Fee** The Annual Fee specified in OAR 340-216-0020, Table 2, Part 2 for a Standard ACDP is due on **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined DEQ regulations will be mailed prior to the above date. **Late fees in accordance with Part 4 of the table will be assessed as appropriate.**
- 9.2. Change of Ownership or Company Name Fee** The non-technical permit modification fee specified in OAR 340-216-0020, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company.
- 9.3. Special Activity Fees** The special activity fees specified in OAR 340-216-0020, Table 2, Part 3 (b through i) are due with an application to modify the permit.
- 9.4. Where to Submit Fees** Fees must be submitted to:
Department of Environmental Quality
Accounting Office
811 SW Sixth Avenue
Portland, Oregon 97204-1390

10.0 GENERAL CONDITIONS AND DISCLAIMERS

- 10.1. Permitted Activities** This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, or is revoked.
- 10.2. Other Regulations** In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by DEQ.
- 10.3. Conflicting Conditions** In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.

- 10.4. 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.
- 10.5. Department 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.
- 10.6. Permit Availability** The permittee must have a copy of the permit available at the facility at all times.
- 10.7. Open Burning** The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
- 10.8. 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 limit to, demolition, renovation, repair, construction, and maintenance.
- 10.9. 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.
- 10.10. 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:
 - i. a timely and complete application for renewal or for an Oregon Title V Operating Permit has been submitted, or
 - ii. 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.

**10.11. Permit
Termination,
Revocation, or
Modification**

DEQ may modify or revoke this permit pursuant to OAR 340-216-0082 and 340-216-0084.

11.0 AUTHORIZATION TO CONSTRUCT

**11.1. Construction
Activities**

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

- a. Four (4) new 108,000-barrel (4.5 MMGal) internal floating roof volatile organic liquid storage tanks;
- b. Two (2) new 36,000 gallon closed-system process tanks (pressure vessels);
- c. One (1) vapor combustion unit (VCU); and
- d. Pumps, piping, and other ancillary equipment necessary to support the new tanks and VCU.

12.0 EMISSION FACTORS

Process	Pollutant	Monitoring Parameter (P)	Emissions Factor (EF)	Emissions Factor Units
Crude Oil Storage Tank(s) (FS01)	VOC	Gallons of throughput for a respective calendar month period	Use TANKS software or AP-42 algorithms for 12-month emission rate calculation	lb/month
Ethanol Storage Tank(s) (FS01)	VOC	Gallons of throughput for a respective calendar month period	Use TANKS software or AP-42 algorithms for 12-month emission rate calculation	lb/month
Other Volatile Organic Liquid Storage Tank(s) (FS01)	VOC	Gallons of throughput for a respective calendar month period	Use TANKS software or AP-42 algorithms for 12-month emission rate calculation	lb/month
Marine Vessel Loading (EP01-VRU)	VOC	Gallons volatile organic liquid product loaded	0.084	lbs/10 ³ gal loaded
Marine Vessel Loading (EP01/EU01&02-VCU)	VOC	Gallons volatile organic liquid product loaded	0.027 ⁽¹⁾	lbs/10 ³ gal loaded
	PM/PM ₁₀ /PM _{2.5}	Gallons volatile organic liquid product loaded	0.1	lbs/10 ³ gal loaded
	SO ₂	Gallons volatile organic liquid product loaded	0.005	lbs/10 ³ gal loaded
	NO _x	Gallons volatile organic liquid product loaded	0.004 ⁽¹⁾	lbs/10 ³ gal loaded
	CO	Gallons volatile organic liquid product loaded	0.002 ⁽¹⁾	lbs/10 ³ gal loaded
Equipment Leaks (FS02)	VOC	Equipment leak constant	33.3	lb/month
Storage Tank Roof Landings and Degassing	VOC	Landing and degassing event constant	5,583	lb/event
Loadout Fugitives (leaks) (FS03)	VOC	Gallons volatile organic liquid product loaded	0.017	lbs/10 ³ gal loaded
Process Tank Fugitives (FS04)	VOC	Process tank degassing	2,538	lb/event

(1) Emission factor must be revised to reflect the measured emission rates demonstrated in each valid source test. After multiple source tests have been performed, the assumed emission factor is to be based on an average of the measured emission rates from all valid source test runs, provided the conditions during the respective source tests are sufficiently similar.

13.0 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 31st	O&M	operation and maintenance
CFR	Code of Federal Regulations	Pb	lead
CO	carbon monoxide	PCD	pollution control device
CO ₂ e	carbon dioxide equivalent	PM	particulate matter
DEQ	Oregon Department of Environmental Quality	PM ₁₀	particulate matter less than 10 microns in size
dscf	dry standard cubic foot	PM _{2.5}	particulate matter less than 2.5 microns in size
EPA	US Environmental Protection Agency	ppm	part per million
FCAA	Federal Clean Air Act	PSD	Prevention of Significant Deterioration
Gal	gallon(s)	PSEL	Plant Site Emission Limit
GHG	greenhouse gas	PTE	Potential to Emit
gr/dscf	grains per dry standard cubic foot	RACT	Reasonably Available Control Technology
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040	scf	standard cubic foot
I&M	inspection and maintenance	SER	Significant Emission Rate
lb	pound(s)	SIC	Standard Industrial Code
MMBtu	million British thermal units	SIP	State Implementation Plan
NESHAP	National Emissions Standards for Hazardous Air Pollutants	SO ₂	sulfur dioxide
NO _x	nitrogen oxides	Special Control Area	as defined in OAR 340-204-0070
NSPS	New Source Performance Standard	Unit Conversion	1 pound/square inch = 6.89475728 kilopascal
NSR	New Source Review	VE	visible emissions
		VOC	volatile organic compound
		year	A period consisting of any 12-consecutive calendar months