LANE REGIONAL AIR PROTECTION AGENCY (LRAPA)
TITLE V OPERATING PERMIT REVIEW REPORT

REVIEW REPORT

SFPP, L.P. Eugene Terminal **Permit No. 207506**
1765 Prairie Road
Eugene, Oregon 97402
Website: https://www.kindermorgan.com/

Source Information:

Primary SIC	4226
Secondary SIC	--
Primary NAICS	493190
Secondary NAICS	--
Public Notice Category	III

Source Category (Title 37, Table 1: Part and Code)	B.31 Gasoline bulk plants, bulk terminals, and pipeline facilities. C.4 All sources that request a PSEL equal or greater than the SER for a regulated pollutant. C.5 All sources having the potential to emit more than 100 tons or more of any regulated pollutant, except GHG, in a year.

Compliance and Emissions Monitoring Requirements:

Unassigned Emissions	N
Emission Credits	N
Compliance Schedule	N
Source Test Date(s)	See Permit

COMS	N
CEMS	N
CPMS	Y
Ambient monitoring	N

Reporting Requirements

Annual Report (due date)	March 15
Emission fee report (due date)	March 15
SACC (due date)	March 15 August 15
Greenhouse Gas (due date)	March 31

Monthly Report (due dates)	N
Quarterly Report (due dates)	N
Excess Emissions Report	Immediately
Other Reports	N

Air Programs

NSPS (list subparts)	A, K, Kb, XX
NESHAP (list subparts)	A, BBBBBB
CAM	Y
Regional Haze (RH)	N
Synthetic Minor (SM)	Y
SM-80	Y
Title V	Y
Part 68 Risk Management	N
ACDP (SIP)	N
Major FHAP source	N

Federal major source	N
New Source Review (NSR)	N
Prevention of Significant Deterioration (PSD)	Y
Acid Rain	N
Clean Air Mercury Rule (CAMR)	N
TACT	N
>20 Megawatt	N

TABLE OF CONTENTS

LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS REVIEW REPORT

ACDP	Air Contaminant Discharge Permit
Act	Federal Clean Air Act
ASTM	American Society of Testing and Materials
BER	Baseline Emission Rate
Btu	British thermal unit
CAAA	Clean Air Act Amendment
CAM	Compliance Assurance Monitoring
CAO	Cleaner Air Oregon
CEMs	Continuous emission monitoring system
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
CPMS	Continuous parameter monitoring system
DEQ	Department of Environmental Quality
dscf	Dry standard cubic feet
EF	Emission factor
EPA	US Environmental Protection Agency
ERC	Emission Reduction Credit
EU	Emissions Unit
°F	Degrees Fahrenheit
FCAA	Federal Clean Air Act
FSA	Fuel sampling and analysis
Gal	Gallon
GHG	Greenhouse Gas
gpm	gallons per mile
gr/dscf	Grain per dry standard cubic foot (1 pound = 7,000 grains)
HAP	Hazardous Air Pollutant as defined by LRAPA Title 44
ID	Identification number
I&M	Inspection and maintenance
kPa	kiloPascal
l	Liter
lb	Pound
LRAPA	Lane Regional Air Protection Agency
mg	milligram
M	1,000
MM	1,000,000
mm Hg	Millimeter of mercury
m^3	Cubic meter
MSDS	Material Safety Data Sheets
NA	Not applicable
NO_X	Nitrogen oxides
NESHAP	National Emission Standard for Hazardous Air Pollutant
NSPS	New Source Performance Standards
NSR	New Source Review
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	Operation and maintenance
QIP	Quality Improvement Plan
Pb	Lead
PCD	Pollution Control Device
PM	Particulate matter
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
ppmv	Parts per million by volume
ppm	Parts per million
PSEL	Plant Site Emission Limit
psia	pounds per square inch, actual
RVP	Reid Vapor Pressure
SCAQMD	South Coast Air Quality Management District
SERP	Source emissions reduction plan
SO_2	Sulfur dioxide
ST	Source test
THC	Total Hydrocarbons
TOC	Total Organic Compounds
TRI	Toxic Release Inventory
VCS	Vapor Control System
VE	Visible emissions
VMT	Vehicle miles traveled
VOC	Volatile organic compounds
VCU	Vapor Combustion Unit

INTRODUCTION

1. SFPP, L.P. – Eugene Terminal ("SFPP" or "the facility") is an existing facility applying for a renewal of an existing Title V operating permit. SFPP submitted a timely and complete permit renewal application to LRAPA, and the existing permit remains in effect until the issuance of the renewed Title V operating permit. Upon issuance, the renewed Title V operating permit will be valid for five (5) years.

2. In accordance with OAR 340-218-0120(1)(f), this review report is intended to provide the legal and factual basis for the draft permit conditions. In most cases, the legal basis for a permit condition is included in the permit by citing the applicable regulation. In addition, the factual basis for the requirement may be the same as the legal basis. However, when the regulation is not specific and only provides general requirements, this review report is used to provide a more thorough explanation of the factual basis for the draft permit conditions.

FACILITY DESCRIPTION

3. SFPP operates a bulk gasoline terminal under the primary SIC code 4226 – Special Warehousing and Storage, Not Elsewhere Classified (Petroleum bulk stations and terminals for hire) located at 1765 Prairie Road, Eugene, Oregon. The facility began operations in 1962. SFPP is a subsidiary of Kinder Morgan.

4. The facility is located in an area that is generally flat. The property to the north, west, and south of the facility is mixed industrial/commercial. To the east of the property is the railway and the Northwest Express Highway.

GENERAL BACKGROUND INFORMATION

5. SFPP has 42 bulk petroleum product storage tanks. Currently 35 storage tanks are in service, six (6) are currently out of service and one (1) tank (Tank: EG-07) is being utilized to house a vapor bladder as part of the control system for the loading racks. The fuel products stored are gasoline, diesel, and ethanol. The tank types include fixed roof, internal floating roof, and external floating roof. The 35 tanks currently in service consist of 12 vertical fixed roof tanks, 15 internal floating roof tanks (including one (1) domed external roof tank), and eight (8) external floating roof tanks. Emissions from the tanks are comprised of working/withdrawal losses, rim seal losses, and deck fitting/seam losses.

In Service Tanks	EG-01 – EG-05, EG-08 – EG-20, EG-22 – EG-26, EG-29 – EG-32, and EG-35 – EG-42
Out of Service Tanks	EG-06, EG-07*, EG-21, EG-27, EG-28, EG-33, and EG-34

*This tank is used to house the vapor bladder for the VCU.

6. SFPP dispenses petroleum fuel products from the tanks into tanker trucks via loading racks. There are four (4) loading racks and one (1) unloading rack that consists of one (1) or more bays. Each bay is able to accommodate one tanker truck. Each storage tank is connected via underground and aboveground pipelines to a manifold where it can be directed to one or more of the four (4) loading racks or to another storage tank. Petroleum fuels are conveyed to a given loading rack and are pumped into a customer's tanker truck via one (1) or more bottom-loading arms. The fuel products are blended with additives and oxygenates, as required, prior to being distributed into the individual tanker trucks.

7. The facility receives refined fuels from Portland via 8-inch pipeline and stored in tanks until it is transferred to tanker trucks. Some of the fuels are received via tanker truck. Denatured ethanol, gasoline and diesel additives are received by tanker trucks. Products received by tanker trucks are offloaded via the unloading rack. There is no processing of incoming materials that is performed at the facility, other than blending products prior to loading the fuel for distribution.

8. SFPP stores and transfers a variety of products including gasoline, diesel, transmix, ethanol (oxygenated), and proprietary customer fuel additives. The higher volatility products including gasoline, transmix (a combination

of gasoline and diesel), and denatured ethanol are stored in floating roof tanks (external and internal floating roofs) due to their higher vapor pressures. Diesel fuel can be stored in fixed-roof, external and internal floating roof tanks. The transmix is a mixture of different petroleum fuel products that are formed during the interface between products conveyed together in a pipeline or generated through normal maintenance and operations activities. This mixture is received at the terminal, stored in specified tanks, and transferred at the loading racks to trucks for offsite processing. Separation of the transmix constituents is not conducted at the facility.

9. SFPP has twelve small tanks on site used for fuel additives. There are eleven horizontal and one (1) vertical fuel additive tanks separate from the bulk storage tanks. The fuel additive tanks are below the storage capacity thresholds and are not subject to any federal regulation at this time.

10. The emissions from the tanks are caused by working, breathing/standing and rim seal/deck fitting losses, cleaning losses and for floating roofs, landing losses. Working losses occur during filling of the tank. Standing/breathing losses are evaporative losses as the product is stored in the tank. Deck fitting losses are a type of standing loss for floating roof tanks. As the product is stored vapor is lost from the rim seals/deck fittings of the tank and is primarily wind induced. Landing losses occur when using floating roof tanks. Usually, the roof floats on the surface of the liquid inside the floating roof tank and this reduces evaporative losses during routine operations. However, when the tank is emptied to the point that the roof lands on deck legs or hangers, there is a period where the roof is not floating, and other mechanisms contribute to emissions. These emissions continue until the tank is refilled to a sufficient level to again float the roof. Therefore, the emission estimation calculations are applicable each time there is a landing of the floating roof. Cleaning losses occur when the facility requires a tank to be cleaned. When a tank is going to be cleaned, the product is removed from the tank by normal pumpout and a forced ventilation of the vapors in the space between the roof, (fixed, internal floating or external floating type) is expelled to the atmosphere. Once the tank has been rendered clean and gas free it may remain in a clean condition for some period of time. While forced ventilation may continue there would be no further emissions in that there would be no remaining sources of vapors once the tank has been cleaned.

11. The facility controls the vapor emissions from the loading racks (EU: T-RACK) with a Vapor Combustion Unit (VCU) as the vapor control device. The VCU consists of an 80 MMBtu/hour, four (4) burner, air-assisted John Zink enclosed thermal oxidizer (enclosed flare) and a holding bladder that is located in Tank EG-07. The holding bladder helps to regulate the vapors recovered from the loading rack operations by collecting the vapor and then releasing the vapor at a steady rate to the VCU. Prior to the VCU being installed SFPP utilized a vapor refrigeration unit (VRU) for the control device. The VRU was decommissioned December 21, 2021, once the VCU became fully operational.

12. Support activities at the facility include an oil water separator, vaults, a holding pond, a water holding tank, nine (9) additive tanks (including one (1) tote), one (1) prover and two (2) sumps (main line and rack sumps) at their facility.

13. SFPP has requested a limit on single and combined HAPs to remain under the major source thresholds of ten (10) and 25 tons per year, respectively. The facility has the potential to emit over the major source thresholds for both single and combined HAPs and is considered a synthetic minor source.

14. SFPP is located inside the Eugene-Springfield Air Quality Management Area. The facility is located in an area that has been designated attainment/unclassified for $PM_{2.5}$, ozone (VOC), NO_2, SO_2, and Pb and a maintenance area for CO and PM_{10}. The facility is located within 100 kilometers of two (2) Class I air quality protection areas: Diamond Peak Wilderness and Three Sisters Wilderness area.

15. LRAPA has reviewed and issued the following permitting actions to this facility since the last Title V renewal:

Date Approved	Permit Action Type	Description
12/21/2015	Addendum No. 1: "Simple" Minor Modification	Amended to increase the Oil Water Separator from 2,000,000 to 50,000,000 gallons per year and changing

Date Approved	Permit Action Type	Description
		the emission factor from 5 lb/1,000 gallons of wastewater to 0.2 lb/1,000 gallons of wastewater: Approval to Construct - NC-207506-A15
2/5/2018	Off-Permit Change	Installation of a new injection pump skid to Rack 3 (EU: TRACK) with a 5,000-gallon additive tank.
4/3/2019	Section 502(b)(10)	TV change notification for the temporary installation of two (2) portable storage tanks to provide for supplemental storage capacity while emergency tank work is being performed on Tank EG-14
4/12/2019	Section 502(b)(10)	TV change notification for the temporary installation of two (2) additional portable storage tanks to provide for supplemental storage capacity while emergency tank work is being performed on Tank EG-14
1/14/2020	Addendum No. 2: Administrative Permit Amendment	Amended to revise or amend the ownership name, the name of the site to the plant site location and added another responsible official title to the responsible official section, and the facility contact person title and phone number.
1/9/2020	Construction ACDP	Purposed installation of a thermal oxidizer (enclosed flare) (VCU) and decommission the VRU as the control device for EU: T-RACK and to convert Tank EG-7 to a vapor holding tank with holding vapor bladder.
1/28/2020	Addendum No. 3: "Significant Permit Modification	Incorporating the Construction ACDP for the installation of the thermal oxidizer (enclosed flare) (VCU) as the control device for emission unit TRACKs and converting Tank EG-7 to a vapor holding tank with holding vapor bladder.
5/27/2020	Addendum No. 4: Minor Permit Modification	Amended to revise Condition 23.b from the 15th day of each month to the 30th day of each month.
Upon Issuance	Title V Renewal	Total facility operating permit.

EMISSIONS UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

16. The emissions units at this facility are the following:

Emission Unit Description	EU ID	Pollution Control Device Description	PCD ID
Fixed roof storage tanks: EG-01, EG-02, EG-03, EG-04, EG-05, EG-08, EG-09, EG-10, EG-11, EG-12, EG-13 and EG-35	FR	None	NA
Internal floating roof storage tanks: EG-14, EG-15, EG-16, EG-17, EG-18, EG-19, EG-20, EG-36, EG-37, EG-38, EG-39, EG-40, EG-41 and EG-42	IFR	None	NA
External floating roof storage tanks: EG-22, EG-23, EG-24, EG-25, EG-26, EG-29, EG-30, EG-31 and EG-32	EFR	None	NA
Tanker truck Loading Racks 1, 2, 3 and 4 and Unloading Rack 5	T-RACK	Vapor Combustion Unit: (Enclosed Flare)	VCU

Emission Unit Description	EU ID	Pollution Control Device Description	PCD ID
Ethanol Unloading (1)	EtOH	None	NA
Fugitive VOC emissions from Flanges, Valves and Pumps	FGTVOC	None	NA
Tank Cleaning (2)	TC	None	NA
Water/Oil Separator, Vaults, & Holding Pond	OWS	None	NA
Sumps (1)	SUMP	None	NA
Off-spec Unloading (1)	OSU	None	NA
Aggregate Insignificant Activities: Roof Landing Losses (2) Prover Additive Tanks	AIA	None	NA

(1) These emission units have been accounted for in the previous permit as 'aggregate insignificant activities' but are now identified as emissions units that emit more than 1 ton per year of VOC.
(2) New emissions points: EPA AP-42: Compilation of Air Emission Factors, Chapter 7.1 – Organic Liquid Storage Tanks, was amended March 2020, and now contains cleaning and landing losses calculations which must be included in the permit. Cleaning Losses were more than 1 ton per year of VOC so it has been designated as an emission unit. Roof Landing Losses were below the 1 ton per year and therefore are an aggregate insignificant activity.
(3) Paved roads and parking lots have been added as a categorically insignificant activity per title 12.

17. FR – Fixed Roof Storage Tanks: This emission unit represents all the fixed roof storage tanks existing at the permitted facility. This type of tank generally consists of a cylindrical steel shell with a permanently affixed roof, which may vary in design from cone (or dome-shaped) to flat. The Eugene Terminal houses a total of twelve (12) fixed roof storage tanks, all of which have a capacity of more than 39,000 gallons. All fixed roof storage tanks currently store volatile liquids with a vapor pressure less than 0.022 psia (0.1517 kPa). Fixed roof storage tank VOC emission are the sum of breathing losses and working losses, which are a function of physical/chemical properties of materials being stored at stored condition, as well as the physical design of tank itself. This holds true for all types of storage tanks, including EUs: IFR and EFR described below. Refer the Detail Sheets and Calculation Table section of the review report for individual tank specifications.

18. EFR – External Floating Roof Storage Tanks: This emission unit represents all external floating roof storage tanks existing at the terminal. There are eight (8) external floating roof tanks existing at the facility, with capacity ranging from 252,000 to 840,000 gallons. The external floating tanks can store volatile liquid with a vapor pressure equal to or greater than 0.022 psia (0.1517 kPa). All external floating roof storage tanks were installed on or before 1984. This type of tank generally consists of a cylindrical shell with an external floating roof that moves with respect to the stored liquid level. Tank EG-25 was modified in 2007/2008 as part of the B07 construction project to increase ethanol offloading and became subject to the NSPS requirements of 40 CFR part 60 subpart Kb. Refer the Detail Sheets and Calculation Table section of the review report for individual tank specifications.

19. IFR – Internal Floating Roof Storage Tanks: This emissions unit represents all the internal floating roof storage tanks existing at the permitted facility. This type of tank has both a permanent fixed cone roof and a floating deck inside, which is free to move vertically as the liquid level rises and falls, and either floats on the liquid surface or rests on pontoons several inches above the liquid surface. The internal floating tanks can store volatile liquid with a vapor pressure equal to or greater than 0.022 psia (0.1517 kPa). The facility has a total of fourteen (14) internal floating roof tanks and one (1) domed internal floating roof tank. According to the permit application, there are three (3) internal floating roof tanks, (tanks EG-17, EG-18, and EG-19) constructed in 1973 that are subject to the NSPS requirements of 40 CFR part 60 subpart K. There are five (5) internal/external floating roof tanks (EG-16, EG-40, EG-41, and EG-42) constructed or modified during or after the year 1984

that are subject to the NSPS requirements of 40 CFR part 60 subpart Kb. Tank EG-16 was modified in 2007/2008 as part of the B07 construction project to increase ethanol offloading and became subject to the NSPS requirements of 40 CFR part 60 subpart Kb. Refer the Detail Sheets and Calculation Table section of the review report for individual tank specifications.

20. T-RACK – Tanker Truck/Trailer Loading and Unloading Racks: The emission unit represents the tank truck loading and unloading racks used to distribute various petroleum products. There are a total of four (4) loading racks at the facility with multiple bays for filling at each rack. Racks 1 through 4 were constructed in 1984 and are subject to 40 CFR part 60 subpart XX. The loading racks (#1-4) are also subject to 40 CFR part 63 subpart BBBBBB, as they are considered an existing affected source as of January 2008. Racks 1 through 4 have the capability to inject ethanol into the gasoline when it is being loaded onto the tank trucks. Racks 1 and 2 have red-dye injectors for diesel fuel. Rack 5 was installed in 2008 for unloading ethanol from cargo tanker and is not 40 CFR part 60 subpart XX.

    20.a. Pollution Control Device (PCD): Vapor Combustion Unit (VCU): The VCU is a thermal oxidizer (enclosed flare) type vapor combustion unit that will control the hydrocarbon vapors from the loading racks. The VCU is a John Zink, 80 MMBtu/hour, 4 burner, air-assisted, temperature controlled enclosed flare that meets the mass emission limitation of 35 mg/L (0.292 lbs VOC/1,000 gallon). The designed inlet gas flow rate is 1,000 cfm. Tank EG-07 has been converted to a vapor holding tank to hold a vapor bladder. The vapor holder tank is equipped with alarms to prevent product loading from exceeding the capacity of the vapor bladder. The collected vapors are sent to the VCU for combustion. The combusted gaseous emissions were calculated using South Coast Air Quality Management District, Rule 1118, "*Control of Emissions from Refinery Flares*", adopted February 13, 1998 (amended July 7, 2017) and the assumption that the natural gas has an high heat value (HHV) of 1,028 Btu/scf.

21. EtOH – Ethanol Unloading: The emission unit EtOH represents the VOC emissions emitted during the unloading of ethanol by either tanker truck. Ethanol unloading is usually done at Rack #5 of the rack system. The VOC emissions are calculated using EPA AP-42, *Fifth Edition Compilation of Air Pollutants Emissions Factors, Volume 1: Stationary Point and Area Sources*: Chapter 5 Petroleum Industry Section 5.2 Transportation and Marketing of Petroleum Liquids using the saturation factor of '1' for a submerged loading; dedicated vapor balance service from Table 5.2-1.

22. FGTVOC – Fugitive VOC emitting sources: The emissions unit FGTVOC represents fugitive VOC emissions associated with VOC containing product handling. The pipe transport systems contain numerous valves, flanges, pumps, sampling ports, and other components through which VOC vapors escape. For the purpose of estimating VOC emissions, emissions factors published in EPA's *Protocol for Equipment Leaks Emission Estimates, US Environmental Protection Agency, Office of Air Quality Planning and Standards, EPA-453/R-95-017, November 1995*, are used. Unless actual emission factors are available for use in the VOC emission calculations, the emission factors as listed in the Title V permit monitoring section should be used. The table below lists the number of each component currently existing at the facility:

Component Name	Count: Number of Components "i"	
	Light*	Gas*
Valves	448	793
Pumps	10	23
Fittings (connectors and flanges)	723	1,451

*Phases of the process stream: Light liquid – material in a liquid state and gas/vapor – material in a gaseous state.

23. TC – Tank Cleaning: The emission unit TC represents the expelled emissions from a tank during forced ventilation by eductors, fans or blowers through shell manhole, cleanout fitting or other shell fittings. The daily breathing cycle that produces standing idle emissions, such as breathing, rim seal, deck fitting and deck seam losses, causes only a portion of the vapors in the vapor space to be expelled from the tank. The vapors that remain in the vapor space are not accounted in the standing idle emissions. The commencement of forced ventilation

expels the remaining vapors from the tank is calculated as tank cleaning emissions. Once the tank stock is removed, the bottom of the tank may be flooded with a light distillate material, such as diesel, to facilitate removal of sludge from the bottom of the tank. The procedure is referred to as distillate flushing. During the process forced ventilation continues until after the tank is clean and gas free.

24. OWS – Oil/Water Separator, Vaults and Holding Pond: The facility storm drains (containing potentially contaminated rainwater/contact water (effluent) are routed to an enclosed vault and then to the Oil/Water Separators. The water from the OWS is then routed to a holding pond which is periodically pumped through an onsite carbon adsorption system when sufficient quantity builds up. It is then discharged to the City of Eugene storm water drainage ditch. The flowrate depends on rainfall and varies throughout the year.

    The VOC emissions from the two (2) OWS and vaults were calculated using the emission factor for oil/water separators in Table 5.1-2 of Section 5.1 (Petroleum Refining), *EPA's AP-42 Compilation of Air Pollutant Emission Factors, January 1995*. This emission factor is 0.20 lbs/1000 gallons. The holding pond emissions were calculated using the South Coast Air Quality Management District's (SCAQMD) default emission factor for evaporative losses from open pond/ditches at an oil and gas reduction facilities and refineries.

    The OWS was placed on the emission units list because it no longer qualifies as a categorically insignificant activity per the DEQ amended Oregon Administrative Rules effective April 16, 2015. An OWS with effluent greater than 400,000 gallons per year are considered an emission unit.

25. SUMP – Sumps: Sump emission are calculated by using the volume and mass of gasoline vapors emitted from the sump, which include the prover sump, rack sump, and main line sump. Emissions from the sump may occur during draining of the prover, maintenance of the prover, sample shack activities, maintenance in the manifold yard, washing of equipment, or rainwater runoff ('contact water'). Contact water is water that has been in contact with hydrocarbon liquids or with hydrocarbon liquid process equipment and therefore may contain minor amounts of hydrocarbon. Because petroleum fuels have low solubility in water, contact water is typically not hazardous unless testing demonstrates unusual quantities of benzene or other hazardous constituents. Contact water at the facility is generated from water drained from process equipment and storm water captured at the site. This water is routed, via sumps near the equipment, to two (2) oil-water separator systems (OWS). Contact water recovered from the OWS is routed to one of the contact water storage tanks. The contents of the contact water tanks are periodically tested and transferred to tanker trucks and shipped off-site for processing. The emission factors used to sump emissions were obtained from EPA AP-42, *Fifth Edition Compilation of Air Pollutants Emissions Factors, Volume 1: Stationary Point and Area Sources*: Chapter 5 Petroleum Industry Section 5.2 Transportation and Marketing of Petroleum Liquids, Table 5.2-7. Sump emissions can be represented by the emission factors for submerged filling (7.3 lb/1000 gals) plus underground tank breathing and emptying (1.0 lb/1000 gals). Based on these, the calculated VOC emissions are approximately six (6) tons per year.

26. OSU – Off-Spec Unloading: Off-spec means gasoline that does not meet the proper specifications of the customer, based on additive concentration, contamination, etc. To represent the worst-case emissions scenario, it is assumed that all off-spec fuel products unloaded is gasoline. The maximum number of events per year is based using the maximum of one (1) truck per week (52 trucks per year) at a volume of 8,000 gallons per truck per event. Off-spec unloading is performed in a designated area, not at the loading racks, and is offloaded directly to a manifold and to the storage tank. The emission factors used to calculate emissions come from EPA AP-42, *Fifth Edition Compilation of Air Pollutants Emissions Factors, Volume 1: Stationary Point and Area Sources*: Chapter 5 Petroleum Industry Section 5.2 Transportation and Marketing of Petroleum Liquids.

AGGREGATE INSIGNIFICANT EMISSION UNITS

27. Aggregate insignificant emissions from the activities identified by the facility are detailed in the following table:

Emissions Source	VOC (tpy)
Roof Landing Losses	0.51

Emissions Source	VOC (tpy)
Prover	0.01
Additive Tanks	0.07
Total	**0.59**

27.a. Roof Landing Losses: When the floating roof tanks, tanks that the roof floats on the surface of the liquid inside the tank which reduces evaporative losses during routine operation. However, when the tank is emptied to the point that the roof lands on deck legs or hangers, there is a period where the roof is not floating, and other mechanisms contribute to emissions. These emissions continue until the tank is refilled to a sufficient level to again float the roof. SFPP worst-case scenario for landing losses is landing a floating roof one time for one (1) tank per year. The emissions for landing losses for one tank per year are calculated at 0.51 tons per year.

27.b. Prover: Pipeline Flow Meter-Prover Operation (Prover) – is used to verify meters used for measurement of the liquid transported by pipeline. The prover is a horizontal pipe circuit of a precisely known volume of 1,176 gallons (28 barrels). When it is necessary to empty the prover for inspection or maintenance activities, the prover is emptied into a small sub-surface sump with the open atmospheric vent. As the prover is filled the prover pipe contains only saturated vapor. When the liquid received from the underground pipeline is routed to run through the prover, the hydrocarbon vapors in the prover are expelled by the incoming liquid and discharged to the atmosphere by way of venting at the sump. This occurs no more than 12 times per year. The VOCs are emitted to the atmosphere each time the prover liquid contents are drained. The displaced volume per displacement event is 924 gallons (22 barrels). However, the calculated value is 1,176 gallons (28 barrels) per event. This larger volume has been used to produce a conservative estimate of VOC emissions. The worst-case emissions for each event (drain and fill) of VOCs would occur if gasoline (RVP 12) vapors were vented each time as gasoline is the most volatile material processed. The calculated emissions are 0.01 tons per year of VOC.

27.c. Additive Tanks: SFPP has ten (10) tanks, eight (8) horizontal and two (2) vertical, that are used to store additives. The tanks are all fixed roof, white, and have a single, free vent which vents directly to the atmosphere. Additives tanks are considered to be an insignificant emission source. Brand-specific proprietary customer blended additives are delivered by tanker truck and stored. Depending on customer requirements, fuel additives injection and midgrade gasoline blending (combination of premium and regular grades) occurs directly at the loading racks. Emissions are based on the assumption of worst-case scenario of six (6) turnovers per year for each tank and utilizing the worst-case additive (Chevron OGA 72040).

CATEGORICALLY INSIGNIFICANT ACTIVITIES

28. Categorically Insignificant Activities: The facility has the following categorically insignificant activities**:**

- Constituents of a chemical mixture present at less than 1 percent by weight of any chemical or compound regulated under OAR chapter 340, division 218 and 220, and LRAPA titles 12 through 51 or less than 0.1 percent by weight of any carcinogen listed in the U.S. Department of Health and Human Services Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year.
- Evaporative and tail pipe emissions from on-site motor vehicle operation;
- Distillate oil, kerosene, and gasoline natural gas or propane burning equipment, provided the aggregate expected actual emissions of the equipment identified as categorically insignificant do not exceed the de minimis level for any regulated pollutant, based on the expected maximum annual operation of the equipment. If a source's expected emissions from all such equipment exceed the de minimis levels, then the source may identify a subgroup of such equipment as categorically insignificant with the remainder not categorically insignificant. The following equipment may never be included as categorically insignificant:

  - Any individual distillate oil, kerosene or gasoline burning equipment with a rating greater than 0.4 million Btu/hour;
  - Any individual natural gas or propane burning equipment with a rating greater than 2.0 million Btu/hour;
- Distillate oil, kerosene, and gasoline natural gas or propane burning equipment brought on site for six (6) months or less for maintenance, construction or similar purposes, such as but not limited to generators, pumps, hot water pressure washers and space heaters, provided that any such equipment that performs the same function as the permanent equipment, must be operated within the source's existing PSEL;
- Office activities;
- Food service activities;
- Janitorial activities;
- Personal care activities;
- Grounds-keeping activities including, but not limited to building painting and road and parking lot maintenance;
- Instrument calibration;
- Maintenance and repair shop;
- Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment;
- Refrigeration systems with less than 50 pounds of charge of ozone depleting substances regulated under Title VI, including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems;
- Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities;
- Temporary construction activities;
- Warehouse activities;
- Accidental fires;
- Air vents from air compressors;
- Continuous emissions monitoring vent lines;
- Pre-treatment of municipal water, including use of deionized water purification systems;
- Electrical charging stations;
- Fire suppression;
- Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking;
- Electric motors;
- Storage tanks, reservoirs, transfer and lubricating equipment used exclusively for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids;
- On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles;
- Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment;
- Pressurized tanks containing gaseous compounds;
- Emissions from wastewater discharges to publicly owned treatment works (POTW) provided the source is authorized to discharge to the POTW, not including on-site wastewater treatment and/or holding facilities;
- Storm water settling basins;
- Fire suppression and training;
- Paved roads and paved parking lots within an urban growth boundary;

- Hazardous air pollutant emissions of fugitive dust from paved and unpaved roads except for those sources that have processes or activities that contribute to the deposition and entrainment of hazardous air pollutants from surface soils;
- Health, safety, and emergency response activities; and
- Combustion source flame safety purging on startup.

ALTERNATIVE OPERATING SCENARIO

29. SFPP does not have any alternative operating scenario.

EMISSION LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING

30. Section 70.6(a)(3) of the federal Title V permit rules requires all monitoring and analysis procedures or test methods required under applicable requirements be contained in Title V permits. In addition, where the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the facility's compliance with the permit.

31. The Title V permit does include monitoring for all requirements that apply to significant emissions units in addition to the testing requirements in the permit. Periodic visible emissions observations are required for all particulate emissions sources. In addition, the permit includes monitoring of operating parameters for the processes and pollution control devices. It is assumed that as long as these processes and controls are properly operated, the emissions levels will be below the emissions limits specified in the permit.

<u>EU: FR – Fixed Roof Tanks</u>

32. EU – FR must equip the fixed rood tanks with pressure/vacuum vents and monitor and keep records of the petroleum liquid stored, period of storage, maximum vapor pressure of liquid stored, and any repairs done on the tanks.

<u>EUs: IFR and EFR – Internal and External Floating Roof Tanks</u>

33. EU: IFR tanks EG-17, EG-18 and EG-19 are subject to 40 CFR part 60 subpart K monitoring and recordkeeping requirements of petroleum liquid store, period stored and maximum true vapor pressure and the maximum expected storage temperature.

34. EU: IFR tanks EG-16, EG-40, EG-41 and EG-42 and EU: EFR tank EG-25 are subject to 40 CFR part 60 subpart Kb. SFPP has chosen to satisfy the requirements of subpart Kb by complying with 40 CFR part 63 subpart WW. The permittee who chooses to comply subpart WW, also must comply with the monitoring requirements in 40 CFR 60.116b(a), (c), (e) and (f)(1), must keep all records and reports pursuant of 40 CFR 60.115b(a) and (b), including report that describe the control equipment and certifies that the control equipment meets the specifications of 40 CFR 60.112b(a)(1) and 60.113b(a)(1), and all records of conducted inspections required by 40 CFR 63.1063(c)(1) and (2), and copies of all records and reports much be kept pursuant to 40 CFR 63.1065.

35. EUs: IFR and EFR storing gasoline are subject to the requirements of 40 CFR part 63 subpart BBBBBB (6B). To satisfy the requirements of subpart 6B each internal and external floating roof gasoline storage tank must be equipped and operated according to the applicable requirements of 40 CFR 63.1063(a)(1) and (b), except the for the secondary seal requirements under 40 CFR 63.1063(a)(1)(i)(C) and (D), and each external floating roof gasoline storage tank must be equipped according to the requirements of 40 CFR 63.1063(a)(2) if such storage tank does not currently meet the requirements of 40 CFR 63.1063(a)(1). The gasoline storage tanks must also comply with the monitoring, testing, notifications, recordkeeping and reporting requirements of subpart 6B.

EU: T-RACK – Tank Truck Loading Racks

36. EU: T-RACK is subject to the emissions limitation and vapor collection system design of 40 CFR part 60 subpart XX. The loading rack VOC emissions must not exceed the emissions to atmosphere for the vapor collection system limitation of the of 35 milligrams of total organic compounds (TOC) per liter of gasoline (0.292 lb VOC/1,000 gallons). Each rack must be equipped with a vapor collection system that collects the TOC displaced from tank trucks during product loading. In addition, the vapor collected at one loading rack cannot pass to another loading rack. Each gasoline tank truck that loads at the facility must have documentation of vapor tightness. The vapor collection system control device must perform a test that is six (6) hours long in which at least 300,000 liters of gasoline is loaded. The three-run requirement of 40 CFR 60.8(f) does not apply to 40 CFR part 60 subpart XX.

37. EU: T-RACK are subject to the requirements of 40 CFR part 63 subpart BBBBBB (6B). According to subpart 6B the loading racks must be equipped with vapor collection system that is designed to collect TOC vapors displaced form cargo tanks during product loading, the emissions must be reduced to less than 80 milligram per liter (0.668 lb VOC/1,000 gals), vapor collection must be designed to prevent any collect TOC vapors from passing through another loading rack or lane, and the gasoline cargo tanks must be vapor tight. The permittee must install, calibrate, certify, operate and maintain, according to the manufacture's specifications, a continuous monitoring system (CMS) while gasoline vapors are displaced to the vapor processor systems. SFPP utilizes thermal oxidation, an enclosed flare, as the vapor combustion unit (VCU). The VCU must be testing to ensure that it is reducing the TOC to less than 80 mg/l. Annual certification test for the gasoline cargo tanks must be performed and the facility must have the documentation of the test.

38. EU: T-RACK's control device, the VCU, is subject to the requirements of 40 CFR part 64, Compliance Assurance Monitoring (CAM). The VCU must maintain a minimum operating temperature of equal or greater than 600°F.

39. EU: T-RACK's VCU is subject to the particulate matter emission limitations under LRAPA 32-015(2)(c). For sources installed, constructed or modified after April 16, 2015, the particulate matter emission limit is 0.10 grains per dry standard cubic foot. The VCU is also subject to the visible emission limitations under LRAPA 32-010(3). This emission unit may not have visible emissions equal to or greater than 20% opacity for a period or periods aggregating more than three (3) minutes in any one (1) hour. Compliance is demonstrated through monitoring of the enclosed flare visible emissions to be completed at least once quarterly. EU: T-RACK must not operate the loading racks without utilizing the vapor collection system and control device operating according to LRAPA 32-007.

EU: FGTVOC – Fugitive VOC emissions from Flanges, Valves and Pumps

40. EU: FGTVOC is subject to the emissions limitation and vapor collection system design of 40 CFR part 60 subpart XX. According to 40 CFR 60.502(j), the facility, on a monthly basis, must inspect for any TOC liquid or vapor leaks of the vapor collection system, the vapor processing system and each loading rack handling gasoline during the loading of gasoline tank truck. Each leak must be recorded and the source of the leak repaired within 15 days after it is detected. A record of each monthly leak inspection must be kept on file at the facility for at least two (2) years. The inspection record must include, as minimum, date of inspection, findings, the leak determination method, corrective action, and the inspector's name and signature.

41. EU: FGTVOC is subject to the requirements of 40 CFR part 63 subpart BBBBBB. Monthly leak inspections of all equipment in gasoline service must be inspected. A log book must be used and be signed at the completion of each inspection and describe a list of equipment inspected, summary description or diagrams showing the location of all equipment in gasoline service at the facility. Each detection of a liquid or vapor leak must be recorded, and initial repair must be made as soon as possible, but no later than five (5) calendar days after detection. If repair is not feasible within 15 days, the facility must provide the reason(s) why the repair was not feasible in the semi-annual report.

Emissions Limits for Aggregate Insignificant Activities and Categorically Insignificant Activities

42. As identified earlier in this Review Report, the facility has insignificant activities that are designated as categorically insignificant activities or aggregate insignificant activities (AIA). For the most part, the requirements that apply to these emission units are operational, maintenance and work practices. 40 CFR 70.6(a)(3) of the federal Title V permit rules, requires all monitoring and analysis procedures or test methods required under applicable requirements be contained in Title V permits. In addition, where the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the facility's compliance with the permit. However, the requirements to include in a permit testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emissions units and applicable requirement situations. It does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. Where compliance with the underlying applicable requirement for an insignificant emission unit is not threatened by a lack of a regular program of monitoring and where periodic testing or monitoring is not otherwise required by the applicable requirement, then in this instance the status quo (i.e., no monitoring) will meet section 70.6(a)(3). For this reason, this permit includes limited requirements for these emission units.

FEDERAL REQUIREMENTS

Chemical Accident Prevention Provision

43. The Title V operating permit includes standard language related to 40 CFR Part 68 – Chemical Accident Prevention Provisions. Should the material storage rate at this facility subject this facility to 40 CFR Part 68, the facility must satisfy all the applicable risk management requirements, including the development of a risk management plan.

Stratospheric Ozone-Depleting Substances

44. The facility does not manufacture, sell, distribute, or use in the manufacturing of a product any stratospheric ozone-depleting substances and the EPA 1990 Clean Air Act as amended, Sections 601-618, do not apply to the facility except that air conditioning units and fire extinguishers containing Class I or Class II substances must be serviced by certified repairmen to ensure that the substances are recycled or destroyed appropriately.

New Source Performance Standards (NSPS)

40 CFR part 60 subpart K – Standards of Performance for Storage Vessel for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978

Applies to Tanks: EG-17, EG-18 and EG-19 Only

45. Any petroleum storage vessel as this term is defined under 40 CFR 60.110 that commenced construction, reconstruction or modification after June 11, 1973 and prior to May 19, 1978 and that has a capacity greater than 151,412 liters (40,000 gallons) is subject to regulation under 40 CFR part 60 subpart K. Tanks EG-17, EG-18 and EG -19 (included in EU: IFR) were constructed or modified after June 11, 1973 and have a capacity above 151,412 liters and therefore, are subject to this regulation.

46. Tanks EG-17, EG-18 and EG-19 must be equipped with a floating roof or an equivalent and records of the types of petroleum liquid is stored, the storage period, the maximum true vapor pressure during the respective storage period must be kept.

40 CFR part 60 subpart K Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition(s)
60.110	Subpart applicability	Yes	Storage vessel with a capacity greater than 246,052 liters and commenced construction or modification after June 11, 1973, and prior to May 19, 1978.	NA
60.111	Definitions	Yes	Tanks EG-17, EG-18 and EG-19 meet the definition of a *storage vessel*.	NA
60.112	Standards for volatile organic compounds (VOC)	Yes	The true vapor pressure of the petroleum liquid as stored is equal to or greater than 78 mm Hg but not greater than 570 mm Hg	17
60.113	Monitoring of operations	Yes	Maintain record of petroleum liquid stored, the period of storage, and maximum true vapor pressure, typical Reid vapor pressure and maximum expected storage temperature of store product	18 & 19

40 CFR part 60 subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984

Applies to Tanks: EG-16, EG-25, EG-40, EG-41, and EG-42:

47. Any petroleum storage vessel as this term is defined under 40 CFR 60.110b with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) that commenced construction, reconstruction or modification after July 23, 1984. Tanks EG-40, EG-41, and EG-42 (include in EU: IFR) have a capacity greater than 75 m^3 and were constructed after July 23, 1984 and Tanks EG-16 (include in EU: IFR) and EG-25 (include in EU: EFR) have capacities over 75 m^3 and were modified after July 23, 1984 are therefore subject to this regulation.

48. SFPP has met the initial notification for tanks EG-16, EG-25, EG-40, EG-41, and EG-42 of 40 CFR 60.110b(e)(5)(iv)(F)(1).

49. The facility has chosen the option of complying with 40 CFR part 63 subpart WW to satisfy 40 CFR part 60 subpart Kb according to 40 CFR 60.110b(e)(5). To comply with 40 CFR 60.110b(e)(5) the facility must comply with the monitoring conditions 40 CFR 60.116b(a), (c), (e) and (f)(1) and all records and reports kept pursuant to 40 CFR 63.115b(a) and (b).

40 CFR part 60 subpart Kb Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition(s)
60.110b	Subpart applicability and designation of affected facility	Yes	Storage vessels with a capacity greater than 75 cubic meters commenced construction or modification after July 23, 1984 and choosing to comply with part 63, subpart WW. Tanks EG-16, EG-25, EG-40, EG-41 and EG-42 are applicable to this subpart.	20

40 CFR part 60 subpart Kb Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition(s)
60.111b	Definitions	Yes	Tanks EG-16, EG-25, EG-40, EG-41 and EG-42 meet the definition of a *storage vessel*.	NA
60.112b	Standards for volatile organic compounds (VOC)	Yes	The facility complies with this section by complying with 40 CFR part 63 subpart WW.	NA
60.113b	Testing and procedures	Yes	The facility complies with this section by complying with 40 CFR part 63 subpart WW	NA
60.114b	Alternative means of emission limitation	Yes	The facility complies with this section by complying with 40 CFR part 63 subpart WW	NA
60.115b	Reporting and recordkeeping	Yes	The facility complies with this section by complying with 40 CFR part 63 subpart WW. The facility must also comply with subsections (a) and (b). Subsections (c) and (d) are not applicable.	22
60.116b	Monitoring of operations	Yes	The facility complies with this section by complying with 40 CFR part 63 subpart WW. The facility must also comply with (a), (c), (e) and (f)(1). The facility is not applicable to subsection (b), (f)(2) and the close vent system in subsection (g).	21
60.117b	Delegation of authority	Yes	Informational	NA

40 CFR part 60 subpart XX – Standards of Performance for Bulk Gasoline Terminals

50. Any loading rack, as this term is defined under 40 CFR 60.500, that is located at a bulk gasoline terminal which delivers liquid product into gasoline tanker trucks and was constructed or modified after December 17, 1980. The loading rack (EU: T-RACK) was modified in 1986 by constructing a new unloading rack (#5) and a vapor refrigeration unit was installed to control the fugitive VOC emission emitted for the rack system.

51. The loading racks must be equipped with a vapor collection system designed to collect the TOC vapors displaced from tank trucks during product loading. The TOC emission to atmosphere from the vapor collection system does not exceed 35 mg/l of TOC per liter of gasoline loaded. Each vapor collection system must be designed to prevent any TOC vapors collected at one loading rack from passing to another loading rack. The loading of liquid product into gasoline tank truck must be limited to vapor-tight gasoline tank trucks.

40 CFR part 60 subpart XX Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition(s)
60.500	Applicability and designation of affected facility	Yes	Loading racks at a bulk gasoline terminal constructed or modified commenced after December 17, 1980.	NA
60.501	Definitions	Yes	Loading rack meets the definition of *loading rack*.	NA

40 CFR part 60 subpart XX Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition(s)
60.502	Standard of Volatile Organic Compound (VOC) emissions from bulk gasoline terminals	Yes	Total organic compounds (TOC) emissions emitted from the vapor collection system (EU: T-RACK) are not to exceed 35 milligrams per liter of gasoline loaded and open at a system pressure less than 4,500 pascals (450 mm of water). Loading of liquid product only into vapor-tight gasoline tank trucks.	33
60.503	Test methods and procedures	Yes	The facility must test the vapor collection system and enclosed combustion unit. Subsection (e) is not applicable.	34
60.504	Reserved	NA		NA
60.505	Reporting and recording	Yes	Record tank truck documentation, monthly leak inspections, notifications, and replacements or additions of components performed.	35
60.506	Reconstruction	Yes	Reconstruction	NA

National Emission Standards for Hazardous Air Pollutants (NESHAP)

40 CFR part 63 subpart BBBBBB (6) – Standards of Performance for Bulk Gasoline Terminals

52. Any gasoline storage tanks, gasoline loading racks, vapor collection-equipped gasoline cargo tank, and equipment components in vapor or liquid gasoline service as this term is defined under 40 CFR 63.11100, that is located at a bulk gasoline terminal which is an area source of HAP.

53. SFPP supplied LRAPA with the Initial Notification Report on May 7, 2008.

54. The gasoline storage tanks that are subject to and complies with, the control requirements of 40 CFR part 60 subpart Kb, will be deemed in compliance with 40 CFR part 63 subpart BBBBBB, but the permittee must report this determination in the Notification of Compliance Status report under 40 CFR 63.11093(b). SFPP has supplied LRAPA with Notification of Compliance Status report on May 7, 2008.

55. The gasoline storage tanks under EU: IFR and EFR must have rim seals that meet the requirements of 63.1063(a)(1) and the operational requirements of 63.1063(b) installed. External floating roof gasoline tanks must also meet the deck fitting requirements of 63.1063(a)(2). Internal and external floating roof tanks must be inspected following 60.1063(c)(1) and (c)(2).

56. The loading racks (EU: T-RACK), to comply with standards of this regulation, must be equipped with a vapor collection system to capture the TOC vapors displaced from the cargo tanks during loading. The TOC must be reduced by at least 80 mg/l of gasoline loaded. TOC vapors collected at one loading rack must not pass through another loading rack and all gasoline must be loaded into gasoline cargo tanks that are vapor tight using the procedures specified in 60.502(e) though (j).

40 CFR Part 63 Subpart BBBBBB citations	Description	Applicable to Source (Yes/No)	Comments	Permit Condition(s)
63.11080	Purpose	Yes	The facility is a gasoline distribution bulk terminal.	NA
63.11081	Subpart applicability	Yes	Conditions (a)(1) and (b), (f), (g), (h), (i), and (j) are applicable. Subsections (c), (d) and (e) not applicable	NA
63.11082	Affected source	Yes	Applies to all gasoline storage tanks, gasoline loading racks, vapor collection-equipped gasoline cargo tank, and equipment components in vapor or liquid gasoline service at the facility. Conditions (b) and (c) are not applicable	NA
63.11083	Compliance dates	Yes	This is an existing site. Conditions (a) and (c) are not applicable.	NA
63.11085	General duties to minimize emissions	Yes	The facility must, at all times, operate and maintain any affected source noted in this subpart, keep applicable records and submit reports.	23, 36 & 58
63.11086	Requirements for a bulk gasoline plant	No	The facility is a bulk gasoline terminal and is not applicable to this subsection.	NA
63.11087	Requirements for gasoline storage tanks at a bulk gasoline terminal	Yes	The facility must meet each emission limit, management practice, testing and monitoring, notifications, recordkeeping and report that applies to the gasoline storage tanks.	24
63.11088	Requirements for gasoline loading racks at a bulk gasoline terminal	Yes	The facility must meet each emission limit, management practice, testing and monitoring, notifications, recordkeeping and report that applies to the gasoline loading racks.	37 & 38
63.11089	Requirements for equipment leak inspections at a bulk gasoline terminal	Yes	Monthly leak inspections of all equipment in gasoline service. Submit applicable notifications, keep records and submit reports.	59
63.11092	Testing and monitoring requirements	Yes	The gasoline loading rack must meet the 80 mg/l of gasoline loaded emission limit. The facility has met condition (a)(3). Conditions (a)(4), (b)(1)(i), (b)(1)(ii), (b)(2), and (e)(3) are not applicable.	25 & 38.a – 38.f
63.11093	Notifications requirements	Yes	The facility has submitted the Initial Notification was submitted May 7, 2008. Notification of Performance Test must be 60 days prior to source testing.	26 & 39
63.11094	Recordkeeping requirements	Yes	Condition (f)(2) Notification of Compliance Status requirement has been met. Subsection (f)(2)(ii) is not applicable.	27.a, 27.b, 40, & 60

40 CFR Part 63 Subpart BBBBBB citations	Description	Applicable to Source (Yes/No)	Comments	Permit Condition(s)
63.11095	Reporting requirements	Yes	Conditions (c) is not applicable.	28, 41.a-41.c & 61.a-61.c
63.11098	General provisions	Yes	Informational	NA
63.11099	Implements and enforces	Yes	Informational	NA
Table 1 to subpart BBBBBB	Applicability Criteria, Emission Limits, and Management Practices for Storage Tank	Yes	(d) Internal and External floating roof gasoline storage tank with a capacity of greater than or equal to 75 m^3 meet the applicable requirements of this subpart by complying with 40 CFR part 63 subpart WW. Subsections (1), (2)(a) and (3) are not applicable.	24.a
Table 2 to subpart BBBBBB	Applicability Criteria, Emission Limits, and Management Practices for Loading Racks	Yes	A bulk gasoline terminal loading rack with a throughput of 250,000 gallons per day or greater is applicable to an emission limit of 80 mg/l, has a vapor collection system, and limits the loading of gasoline into gasoline cargo tanks that are vapor tight. Subsections (1) is not applicable.	37.a-37.d
Table 3 to subpart BBBBBB	Applicability of General Provision	Yes	Applicable to noted section of General Provision.	NA

40 CFR part 63 subpart WW – National Emission Standards Storage Vessels (Tanks) – Control Level 2

57. The facility has chosen to comply with 40 CFR part 63 subpart WW to comply with the requirements of 40 CFR part 60 subpart Kb and the internal and external floating roof storage vessels requirements of 40 CFR part 63 subpart BBBBBB.

58. The applicability of 40 CFR 63.1060 applies to the control of air emissions from internal and external floating roof gasoline storage vessels for which 40 CFR part 60 subpart Kb and 40 CFR part 63 subpart BBBBBB are subject and references the use of 40 CFR part 63 subpart WW for such air emission control. These air emission standards for storage vessels are placed here for administrative convenience and only apply to those permittees of facilities subject to a referencing subpart. The provisions of subpart A (General Provisions) do not apply except as noted in the referencing subpart.

59. The facility complies with the control requirements of a 40 CFR 63.1062(a)(1) and (a)(2), the floating roof requirements of 40 CFR 63.1063(a) through (e), the recordkeeping requirements of 40 CFR 63.1065 and the reporting requirements of 40 CFR 63.1066.

40 CFR Part 63 Subpart WW citations	Description	Applicable to Source (Yes/No)	Comments	Permit Condition(s)
63.1060	Applicability	Yes	Control of air emissions from storage vessels for which another subpart	NA

40 CFR Part 63 Subpart WW citations	Description	Applicable to Source (Yes/No)	Comments	Permit Condition(s)
			references the use of this subpart for such air emission control.	
63.1061	Definitions	Yes	Tanks are defined as either Fixed Roof, External Floating Roof and Internal Floating Roof.	NA
63.1062	Storage vessel control requirements	Yes	Operate and maintain IFR and EFR or equivalent.	30
63.1063	Floating roof requirements	Yes	IFR and EFR are subject to the design, operational, inspection frequency, inspection procedure, are repair requirements. Subsections (1)(i)(D), (2)(ii)(C) and (2)(ix) requirements have been met.	31
63.1064	Alternative means of emission limitation	Yes	Alternative control device requirements.	32
63.1065	Recordkeeping requirements	Yes	Record vessel dimensions, capacity, inspection results and floating roof landings.	33
63.1066	Reporting requirements	Yes	Notification of initial startup and periodic reports.	34
6.1067	Implementation and enforcement	Yes	EPA retains enforcement authority for approval of alternatives, approval of major change to test methods, monitoring, and recordkeeping and reporting.	NA

COMPLIANCE ASSURANCE MONITORING (CAM)

60. Title 40, Part 64 of the Code of Federal Regulations (CFR) contains Compliance Assurance Monitoring (CAM) requirements. These regulations are also codified in LRAPA 35-0200 through 35-0280. CAM requirements apply to any Pollutant Specific Emissions Unit (PSEU) at a Part 70 source that meets the following criteria:

60.a. The unit is subject to an emission limitation or standard for a regulated air pollutant;

60.b. The unit uses a control device to achieve compliance with that emission limitation or standard;

60.c. The unit, by itself, has potential pre-control emissions of the regulated air pollutant that would make it a major source (i.e. greater than 100 tons per year for criteria pollutants; greater than 10 tons per year for individual Federal HAPs); and

60.d. The exemptions in 40 CFR 64.2(b) and LRAPA 35-0200(2) do not apply. The exemptions include:

60.d.i. Emission limitations or standards proposed by US EPA after November 15, 1990 under section 111 (NSPS) or section 112 (NESHAPs);

60.d.ii. Stratospheric ozone protection requirements under Title VI;

60.d.iii. Acid Rain Program requirements;

60.d.iv. Emission limitations or standards or other applicable requirements that apply solely under an emissions trading program approved or promulgated by US EPA;

60.d.v. An emissions cap that meets the requirements in 40 CFR 70.4(b)(12);

60.d.vi. Emission limitations or standards for which a Part 70 permit specifies a continuous compliance demonstration method, as defined in 40 CFR 64.1 and LRAPA title 12; and

60.d.vii. Municipally-owned backup utility emission units meeting the requirements under 40 CFR 64.2(b)(2).

61. The following table evaluates CAM applicability for all significant emission units at the facility:

Emission Unit	Regulated Pollutant	Uses a Control Device for Regulated Pollutant	Uncontrolled Potential Emissions Exceed Major Thresholds	Is there an Emission Limitation or Standard for this Pollutant	Subject to CAM for the Pollutant	Monitoring Frequency
EU: FR	VOC	No	No	No	No	--
EU: IFR	VOC	No	No	No	No	--
EU: EFR	VOC	No	No	No	No	--
EU: T-RACK (PDC: VCU)	$PM/PM_{10}/PM_{2.5}$	No	No	No	No	--
	NO_X	No	No	No	No	--
	CO	No	No	No	No	--
	SO_2	No	No	No	No	--
	VOC	Yes	Yes	Yes	Yes	Continuously while operating
EU: FGTVOC	VOC	No	No	No	No	--
EU: TC	VOC	No	No	No	No	--
EU: OWS	VOC	No	No	No	No	--
EU: EtOH	VOC	No	No	No	No	--
EU: SUMP	VOC	No	No	No	No	--
EU: OSU	VOC	No	No	No	No	--

62. VCU: John Zink Enclosed Flare: The Compliance Assurance Monitoring (CAM) Plan for the Vapor Combustion Unit – thermal oxidizer – enclosed flare (VRU), was developed in accordance with 40 CFR Section 64.3, "Monitoring design criteria". The collected vapors from EU: TRACK will be routed to a vapor holding tank (Tank EG-07). When the vapor tank bladder reaches an approximate height of 18 feet, the vapor will be released to the VCU. The parameter to be monitored will be the exhaust stack temperature and is performed continuously with a thermocouple. Periodic inspection and maintenance of the burner system will also be another element of the requirement of this section.

62.a. The inspection and maintenance work practice comprised of an annual inspection (including tuning) of the VCU burners was selected because this verifies equipment integrity and periodic tuning will maintain proper burner operation and efficiency. The thermocouple will be located in the stack and the temperature will be monitored via a Programmable Logic Computer (PLC). The PLC employs temperature-controlled feedback that maintains the desired temperature to combust the VOC emissions from the EU: T-RACK efficiently and in compliance with the mass emission limit.

62.b. The rationale for selection of performance indicators: The temperature was selected as a performance indicator because it is indicative of proper flare operation (combustion occurring within the chamber). If the temperature decreased below a specified set point, in this case 600°F, complete combustion may not occur. This potentially could cause the mass emission limitation of 35 mg/l (0.292 lb VOC/1,000 gallons) to be exceeded. The proper temperature operation will achieve compliance with the emission limitation. The work practice of inspecting and maintenance on an annual basis, which would include the tuning of the burners, will be utilized because it verifies equipment's integrity and periodic tuning will maintain proper burner operation and efficiency. The facility will follow the manufacturer's suggested maintenance practices as applicable which further ensure reliable operation. The annual inspection of the vapor system according to the manufacturer's suggested maintenance practices as applicable will be followed to ensure reliable operation.

62.c. Per 40 CFR 64.7(d): (1) The response to excursions or exceedances, the facility will restore operation to its normal or usual manner as expeditiously as practicable. The response will include taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance. Such actions may include initial inspection and evaluation, recording the operations returned to normal without operator action, or necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. (2) Determination of whether the facility has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. Based on the determination made under 40 CFR 61.7(d)(2), LRAPA may require SFPP to develop and implement a Quality Improvement Plan (QIP).

General Criteria	Indicator #1	Indicator #2	Indicator #3
Parameter	Exhaust Stack Temperature	Work Practice – Inspection and Maintenance	Work Practice – Inspection and Maintenance
Measurement Approach	Monitored continuously with a thermocouple	Periodic inspection and maintenance of the burner	Periodic inspection and maintenance of the vapor compressor
Indicator Range	At or above 600°F	Annual inspection and manufacturer's recommended maintenance frequency.	Annual inspection and manufacturer's recommended maintenance frequency.
Performance Criteria			
Data Representativeness	The thermocouple will be located 20' up the stack, or approximately 16.5' above the burner tips. The minimum tolerance of the thermocouple will be determined once a manufacturer is selected. The temperature is monitored via a Programmable Logic Computer (PLC). The	NA	NA

General Criteria	Indicator #1	Indicator #2	Indicator #3
	minimum set point is 600°F. Above this temperature, 0.292 lbs VOC/1,000 gal is achievable		
Verification of Operational Status	NA	NA	NA
QA/QC Practices and Criteria	The thermocouple is factory calibrated. The thermal oxidizer maintenance schedule does not include any requirements for thermocouple calibration	NA	NA
Monitoring Frequency	Measured continuously	At least an annual inspection of the burner and periodic maintenance at a frequency in accordance with any applicable manufacturers' suggested schedule	At least an annual inspection of the burner and periodic maintenance at a frequency in accordance with any applicable manufacturers' suggested schedule
Data Collection Procedure	Recorded continuously during burner operation	Record results of maintenance procedures and annual inspection to be maintained for a 5-year period	Record results of maintenance procedures and annual inspection to be maintained for a 5-year period
Averaging Period	No average is taken	NA	NA

TOXICS RELEASE INVENTORY (TRI)

63. The Toxic Release Inventory (TRI) is a federal program that tracks the management of certain toxic chemicals that may pose a threat to human health and the environment, over which LRAPA has no regulatory authority. It is a resource for learning about toxic chemical releases and pollution prevention activities reported by certain industrial facilities. Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) created the TRI Program. In general, chemicals covered by the TRI Program are those that cause:

    - Cancer or other chronic human health effects;
    - Significant adverse acute human health effects; or
    - Significant adverse environmental effects.

    There are currently over 650 chemicals covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual TRI reports on each chemical. NOTE: The TRI Program is a federal program over which LRAPA has no regulatory authority. LRAPA does not guarantee the accuracy of any information copied from EPA's TRI website.

64. In order to report emissions to the TRI program, a facility must operate under a reportable NAICS code, meet a minimum employee threshold, and manufacture, process, or otherwise use chemicals in excess of the applicable

reporting threshold for the chemical. Because this facility operates under NAICS code 493190 – Bulk petroleum storage, this facility is not required to report emissions to the TRI program.

PLANT SITE EMISSION LIMITS

65. Provided below is a summary of the baseline emission rate, netting basis, plant site emission limit and emissions capacity.

Pollutant	Baseline (tons/yr)	Netting Basis		Plant Site Emission Limit (PSEL)			Capacity (tons/yr)	Actual Emissions for 2022 (tons/yr)
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)		
PM	0	0	0	24	2.3	-21.8	2.6	1.20
PM_{10}	0	0	0	14	2.3	-11.8	2.6	0.48
$PM_{2.5}$	NA	NA	0	9	2.3	-6.8	2.6	0.30
CO	0	0	0	99	11	-88.5	12	0.21
NO_X	0	0	0	39	39	0	44	0.14
SO_2	0	0	0	0	0	0	0.28	0.01
VOC	569	480	569	472	581	109	581	68.25
Single HAP	0	0	0	9	9	0	14.15	0.93
Combined HAPs	0	0	0	24	24	0	30.59	2.94
Pb	0	0	0	0	0	0	0	0
GHG	0	0	0	74,000	45,520	-24,481	45,520	5,346

65.a. Though the facility was operating in 1977-1978 the baseline emission rate (BER) was initially based on the 1984 actual emission.

65.b. The VOC was adjusted from the 1984 actual emissions of the facility to include emissions units that have been part of normal operations (EUs: OWS, TC, SUMP, & FGTVOC) but were not accounted for in the BER. The BER was also increased for the tanks (EUs: FR, IFR & EFR) new methodology for calculating emissions from the tanks.

65.c. A baseline emission rate was not required for $PM_{2.5}$ in accordance with the definition of "baseline emission rate" in LRAPA Title 12.

65.d. The baseline emission rate for greenhouse gases (GHGs) is zero (0) because the facility did not operate any source that emitted GHGs between the baseline period of calendar years of 2000-2010.

65.e. The netting basis for VOC was increased as a reflection of the increase to the BER.

65.f. There is no change to the netting basis for the pollutants with PSELs (PM, PM_{10}, $PM_{2.5}$, CO and NO_X) established in Addendum #3 issued January 28, 2020. Increases to the netting basis are approved through Major NSR, Type A State NSR, or PSD action under title 38. This permitting action did not trigger a Major NSR or Type A State NSR action, so the netting basis for each of these pollutants remains zero (0). [LRAPA 42-0046(3)(e)]

65.g. In accordance with OAR 340-222-0041(3), the PM, PM_{10}, $PM_{2.5}$, CO, and VOC PSELs have been set at the source's potential to emit. No PSEL is set for SO_2 in accordance with LRAPA 42-0020(3) because SO_2 is emitted facility-wide below the de minimis level, as defined in LRAPA title 12.

65.h. The potential to emit for NO_X is greater than the SER over the netting basis. SFPP elected to limit the NO_X PSEL to one (1) ton less than the SER.

65.i. SFPP has requested a limit of nine (9) tons per year for a single HAP and 24 tons per year for combined HAPs. The facility is a synthetic minor source since SFPP has the potential to emit over major thresholds of ten (10) tons per year single HAP and 25 tons per year for combined HAPs. The facility's semi-annual and annual reporting have demonstrated that the facility has remained under the major source thresholds for all reporting periods.

66. There have been no physical modifications at the facility that would have required a New Source Review or have met the LRAPA definition of a major modification since the baseline period. Previously insignificant emission units or activities were incorporated into this renewal permit because it was determined through calculations that they should be accounted for as emission units.

SIGNIFICANT EMISSION RATE

67. The Plant Site Emission Limit increase over the netting basis is less than the Significant Emission Rate (SER) as defined in LRAPA Title 12 for all of the pollutants as shown below:

Pollutant	Netting Basis (tons/year)	Proposed PSEL (tons/year)	Unassigned Emissions (tons/year)	SER (tons/year)
PM	---	2.3	---	25
PM_{10}	---	2.3	---	15
$PM_{2.5}$	---	2.3	---	10
CO	---	11	---	100
NO_X	---	39	---	40
SO_2	---	---	---	40
VOC	569	581	---	40
Pb	---	---	---	0.06
GHG	---	49,520	---	75,000

UNASSIGNED EMISSIONS AND EMISSION REDUCTION CREDITS

68. The facility has no unassigned emissions and does not have any emissions reduction credits at this time.

HAZARDOUS AIR POLLUTANTS/TOXIC AIR CONTAMINANTS

69. The following is the potential to emit (tons per year) of the facility for hazardous air pollutants listed in Section 112(b) of the 1990 Clean Air Act Amendments (CAAA). The emissions totals below reflect the maximum HAP emissions from the facility. The table demonstrates that the facility has the capacity to emit more than ten (10) tons per year of any single HAP and less than 25 tons per year of total HAPs, but SFPP has requested to be a synthetic minor for FHAPs by limiting the individual and combined HAP to no more than nine (9) and 24 tons per year, respectfully. The facility is therefore considered an area source of HAP and is subject to 40 CFR part 63 subpart BBBBBB.

70. Under the Cleaner Air Oregon program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. This source has not been notified by LRAPA and is therefore not yet required to perform a risk assessment or report annual emissions of toxic air contaminants. LRAPA required reporting of approximately 600 toxic air contaminants in 2016 and regulates approximately 260 toxic air contaminants that have Risk Based Concentrations established in rule. All Federal HAPs (FHAPs) are on the list of approximately 600 toxic air contaminants. The FHAPs and toxic air contaminants listed below are based

upon source testing and standard emission factors for the types of emission units at this facility. After the source is notified by LRAPA, they must update their inventory and perform a risk assessment to see if they must reduce risk from their toxic air contaminant emissions. Until then, sources will be required to report toxic air contaminant emissions triennially.

Pollutant	FHAP	CAO/TAC	HAP Emissions (tpy)
Benzene	Yes	Yes	3.9
Ethyl Benzene	Yes	Yes	0.47
Hexane	Yes	Yes	14
Toluene	Yes	Yes	6.0
Xylene	Yes	Yes	2.3
2,2,4-Trimethylpentane	Yes	Yes	3.7
POM as 16-PAH (Naphthalene)	Yes	Yes	0.24
Total			**30.6**
Single HAP Source Requested Limit			**9**
Combined Source Requested Limit			**24**

TITLE V PERMIT CHANGE LOG

71. The following is a list of condition-by-condition changes between the current Title V permit and the draft Title V permit:

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
Cover page	Cover page	Updated "Issued to", "Information Relied Upon" and "Facility Contact Person"	New company address, new application for renewal and new facility contract.
Definitions	Definitions	Included the definition of "Modified EPA Method 9 (EPA Method 203B)".	Required for Title V.
1	1	None	None.
2	--	Added LRAPA's authority to implement DEQ Title V regulations	Regulatory updates
3	2	Updated condition numbers that are LRAPA-only and/or DEQ-only enforceable	NA
4	3	Updated emission unit list to indicate new emission units with permit requirements.	Clarity and regulatory requirement.
5-7	4-5	Updated rule citation	2018 LRAPA rule revision
--	6	Removed condition	SFPP does not utilize diesel at their facility.
--	7	Removed condition	SFPP does not utilize diesel at their facility.
8-11	8-9	Extracted the monitoring/recordkeeping requirements into new conditions.	Clarity and consistency.

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
12	10	None	None.
13	24	Updated applicable requirement and removed reference to 40 CFR 60.7	Clarity.
14	25	Updated monitoring requirement	Specified monitoring requirements
15-17	26 & 27	Removed Condition 26.a.ii – requirement for a vapor recovery system and Condition 27.c – exempted tanks.	The requirements to equip tanks with a vapor recovery system and exemptions of specified tanks are not applicable the facility.
18	28	Changed applicable requirement	The facility has chosen the option to comply with 40 CFR part 60 subpart Kb by complying with requirement of 40 CFR part 63 subpart WW. 40 CFR 60.110b(a) is still applicable to the facility.
--	29	Removed monitoring/testing requirements of 40 CFR 60.113b	The facility is complying with 40 CFR part 63 subpart WW.
19	30.b-30.e	Exacted monitoring requirements into a new condition	Clarity and consistency.
20	30.a	Install additional 40 CFR 60.115b(b) requirement	The additional requirements are applicable because the facility has chosen to comply with 40 CFR part 63 subpart WW.
20.a.iii	48	Moved condition	Clarity and consistency.
21	20	None	None.
22	11	Removed Conditions 11.b	The facility has complied with the dates specified.
23	12	None	None.
24	--	Installed additional requirement	Notification requirement
25.a	13.a	Updated language	Clarity and consistency.
25.b	22.a	None	None.
26	13.b	Updated language	Clarity and consistency.
27-30	--	Installed 40 CFR part 63 subpart WW requirements	The additional requirements are applicable because the facility has opted to comply with 40 CFR part 63 subpart WW.
31	31	None	None.
32	32	None	None.
33	33.a-33.c, 33.e & 33.f	Moved 40 CFR 60.505(c) requirement from EU: T-RACK section to EU: FGTVOC section of the permit.	Clarity and consistency.

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
34	20	None	None.
35	14	Installed 40 CFR part 63 subpart BBBBBB Table 2 language as conditions and removed 40 CFR 63.11086(a) from the condition	Clarity and consistency.
36	15	Removed 40 CFR 63.11092(b)(1)(ii) condition for a vapor refrigeration unit (VRU) and installed 40 CFR 63.11092(b)(1)(iii) conditions for vapor combustion unit (VCU)	Facility has changed control device from a vapor refrigeration unit (VRU) to a vapor combustion unit (VCU).
37	21	None	None.
38	16 & 22.a	Included all 40 CFR 63.11094 language into one condition	Clarity and consistency.
39	16.d	None	None.
40	33.h	Updated to reflect the removal of the VRU and the installation of VCU as the control device	The facility replaced the VRU with the VCU as the control device.
41	--	Installed Quality Improvement Plan (QIP) requirements	Inclusion of applicable regulator language.
42-51	--	Added new applicable state and local regulations for the VCU.	Inclusion of applicable regulatory language.
52	34	Moved this condition to EU: FGTVOC section of permit	Clarity and consistency.
53	33.d	Moved this condition to EU: FGTVOC section of permit	Clarity and consistency.
54	33.f	Moved this condition to EU: FGTVOC section of permit	Clarity and consistency.
55	20	Moved this condition to EU: FGTVOC section of permit	Clarity and consistency.
56	17	None	None.
57	19	Moved 40 CFR 63.11095(a) reporting section and added 40 CFR 63.11095(g) language.	40 CFR 63.11095(g) language is required for EU: FGTVOC.
58	16.e 19.c & 22.c	Consolidated federal language into one condition	Clarity and consistency.
59-63	--	Installed conditions to regulate EU: TC, OWS, EtOH, SUMP, and OSU	Inclusion of applicable regulatory language.
64	37	Updated language and rule citation from OAR to LRAPA	2018 LRAPA rule revision.
65	38	Add rule citation	2018 LRAPA rule revision.
66	23	Updated PSEL table to include new criteria pollutants and emission units. Updated production limitation	Addition of VCU and new EUs emissions. Production limits now include ethanol unloading and Oil/water Separator limits.
67	--	Installed formula required to calculate PSELs.	Clarity and consistency.

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
68	--	Installed emission factors required for Condition 70 formulas. Added GHGs requirement.	Clarity and consistency.
69	40	Updated language	Clarity and consistency.
70-76	41-47	None	None.
77	49	Updated condition language	Clarity and consistency.
78	50	None	None.
79	51	None	None.
80	--	Updated EPA's address	Clarity and consistency.
81	53.a	Updated condition	Inclusion of applicable reporting requirements.
82	53.b & 53.c	Updated condition	Inclusion of applicable reporting requirements.
83	52	Updated GHG language	Clarity and consistency.
84	--	Installed condition with other reporting requirements that the facility may be subject to	Clarity and consistency.
85	54	None	None.
86	55	None	None.
87	56	Updated to reflect other non-applicable federal regulations	Clarity and consistency.
G1-G29	G1-G29	Updated Open Burning to Outdoor Burning	2018 LRAPA rule revision

MONITORING REQUIREMENTS

72. Section 70.6(a)(3) of the federal Title V permit rules, requires all monitoring and analysis procedures or test methods required under applicable requirements be contained in Title V permits. In addition, where the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

    However, the requirements to include in a permit testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emissions units and applicable requirement situations. It does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. Where compliance with the underlying applicable requirement for an insignificant emission unit is not threatened by a lack of a regular program of monitoring and where periodic testing or monitoring is not otherwise required by the applicable requirement, then in this instance, the status quo (i.e., no monitoring) will meet section 70.6(a)(3). For this reason, this permit does not include any monitoring for insignificant emissions units and activities.

The Title V permit does include monitoring for all requirements that apply to significant emissions units in addition to the testing requirements in the permit. Periodic visible emissions observations are required for all particulate emissions sources. It is assumed that as long as these processes and controls are properly operated, the particulate emissions levels will be below the emissions limits specified in the permit. In addition, the permit includes monitoring of operating parameters for other emission units and pollution control devices.

GENERAL TESTING REQUIREMENTS

73. This section is provided so that the permittee and LRAPA will know what test methods should be used to measure pollutant emissions in the event that testing is conducted for any reason. This section does not by itself require the permittee to conduct any more testing than was previously included in the permit. Although the permit may not require testing because other routine monitoring is used to determine compliance, LRAPA and EPA always have the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntary conduct testing to confirm the compliance status. In either case, the methods to be used for testing in the event that testing is conducted are included in the permit. This is true for SIP as well as NSPS emission limits and standards.

SOURCE TEST RESULTS

74. This facility has conducted a number of source tests to comply with permit requirements. The table below shows the results of the test reports on file at LRAPA.

John Zink Vapor Combustion System

Emission Device	Test Date	Production Rate During the Test	Results
Vapor Combustion Unit (VCU) – John Zink Enclosed Flare	December 15, 2021	381,878 gallons of gasoline	0.09 lb THC*/1000 gallons of gasoline (11.30 mg/l)
Vapor Combustion Unit (VCU) – John Zink Enclosed Flare	March 25, 2022	429,462 gallons of gasoline	0.026 lb THC*/1000 gallons of gasoline (3.10 mg/l)
Vapor Combustion Unit (VCU) – John Zink Enclosed Flare	March 29, 2023	405,508 gallons of gasoline	0.030 lb THC*/1000 gallons of gasoline (3.59 mg/l)

*THC = Total Hydrocarbons

VCU – Thermal Oxidizer: Enclosed Flare

75. The facility is required to demonstrate compliance with the mass emission limitation of 35 mg/L (0.292 lb VOC/1,000 gallons). If SFPP modifies the operating parameters, such as a lower temperature or increases the current maximum flow from EU: TRACK, the permittee must retest the VCU within 180 days.

RECORDKEEPING REQUIREMENTS

76. The permit includes requirements for maintaining records of all testing, monitoring, and production information necessary for assuring compliance with the standards and calculating plant site emissions. The records of all monitoring specified in the Title V permit must be kept at the plant site for at least 5 years.

REPORTING REQUIREMENTS

77. The permit includes a requirement for submitting semi-annual and annual monitoring reports that include semi-annual compliance certifications. Excess emissions are required to be reported to LRAPA immediately as well as in a logbook attached to the annual report. Emissions fees reports are required annually.

COMPLIANCE HISTORY

78. The facility is regularly inspected by LRAPA. The following table indicates the FCE inspection history since 2014.

Full Compliance Evaluation

Type of Inspection	Date	Results
LRAPA - Full Compliance Evaluation	01/24/2014	In Compliance
LRAPA - Full Compliance Evaluation	08/16/2016	In Compliance
LRAPA - Full Compliance Evaluation	07/19/2018	In Compliance
LRAPA - Full Compliance Evaluation: Delayed due to Covid.	03/04/2021	In Compliance
LRAPA - Full Compliance Evaluation	08/11/2023	In Compliance

79. On May 25, 2016, EPA Region 10 made an unannounced site visit to inspect SFPP with a FLIR camera. EPA found 13 areas of emissions with the FLIR camera. SFPP addressed all issues detected during the inspection.

80. Since the facility's August 27, 2015 – Title V renewal, LRAPA has not received any complaints, issued any violation notices or taken any enforcement action against the facility.

PUBLIC NOTICE

81. This permit was on public notice from October 25, 2023 to November 29, 2023. No comments were submitted in writing during the comment period. This proposed permit is being sent to EPA for a 45-day review period. LRAPA will request and EPA may agree to an expedited review if there were no substantive or adverse comments during the comment period.

    If the EPA does not object in writing, any person may petition the EPA within 60 days after the expiration of EPA's 45-day review period to make such objection. Any such petition must be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided for in OAR 340-218-0210, unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period.

EPA REVIEW

82. This proposed permit was sent to EPA on December 1, 2023, for a 45-day review period. Because no advance comments were received and there were no substantiative changes to the permit after the public comment period, LRAPA requested, and EPA agree to expedited review. The public will have 105 days (45-day EPA review period plus 60-days) from the date of the proposed permit was sent to EPA to appeal the permit with EPA.

BE/cmw
8/27/2024

DETAIL SHEETS AND CALCULATION TABLES

Maximum Plant Site Emissions Levels (PSELs)															
	Criteria Pollutants							HAP Emissions							
Emission Units	**PM**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**NO_X**	**SO_2**	**VOC**	**Benzene**	**Ethyl-benzene**	**n-Hexane**	**Toluene**	**Xylenes**	**2,2,2-Trimethly-pentane**	**POM as 16-PAH**	**Total HAP**
TANKs: (EUs: FR, IFR, & EFR)	0.00	0.00	0.00	0.00	0.00	0.00	122.50	0.36	0.08	2.22	0.91	0.33	0.60	0.04	4.54
Loading Racks 1-5: (EU: T-RACK)	0.00	0.00	0.00	0.00	0.00	0.00	416.63	3.20	0.36	11.38	4.62	1.78	2.84	0.18	24.34
Enclosed Flare (VCU)	2.56	2.56	2.56	11.93	44.31	0.28	2.39	0.02	0.00	0.04	0.03	0.01	0.02	0.00	0.13
Valves, Pumps, & Flanges (EU: FGTVOC)	0.00	0.00	0.00	0.00	0.00	0.00	0.99	0.01	0.00	0.02	0.01	0.00	0.01	0.00	0.05
Tank Cleaning : (EU: TC)	0.00	0.00	0.00	0.00	0.00	0.00	6.29	0.06	0.01	0.10	0.08	0.03	0.05	0.00	0.33
Oil/Water Separator including Vaults and Holding Pond (EU: OWS)	0.00	0.00	0.00	0.00	0.00	0.00	16.57	0.15	0.02	0.27	0.22	0.08	0.13	0.01	0.87
Ethanol Unloading (EU: EtOH)	0.00	0.00	0.00	0.00	0.00	0.00	7.67	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02
Sumps (EU: SUMP)	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.05	0.01	0.10	0.08	0.03	0.00	0.00	0.27
Offspec Unloading (EU: OSU)	0.00	0.00	0.00	0.00	0.00	0.00	1.84	0.02	0.00	0.03	0.02	0.01	0.01	0.00	0.10
Subtotal for EUs	**2.56**	**2.56**	**2.56**	**11.93**	**44.31**	**0.28**	**580.88**	**3.86**	**0.47**	**14.16**	**5.98**	**2.27**	**3.66**	**0.24**	**30.64**
Aggregate Insignificant Activities															
Roof Landing Losses	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.005	0.001	0.008	0.007	0.003	0.004	0.000	0.03
Prover	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Additive Tanks	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Subtotal for Agg Ins Activities	0.00	0.00	0.00	0.00	0.00	0.00	**0.58**	**0.01**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.01**
TOTAL (tons/yr)	**2.56**	**2.56**	**2.56**	**11.93**	**44.31**	**0.28**	**581.46**	**3.87**	**0.47**	**14.17**	**5.98**	**2.28**	**3.67**	**0.24**	**30.65**

Pollutant	Baseline [1]	Netting Basis [2]		Plant Site Emission Limit (PSEL)			Calculated PTE Emissions	Increase over the Netting Basis	SER	2022 Actual Emissions
		Previous	Proposed	Previous PSEL	Proposed PSEL	PSEL Increase				
	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
PM	0	0	0	24	2.6	-21.4	2.56	2.6	25.0	1.20
PM_{10}	0	0	0	14	2.6	-11.4	2.56	2.6	15.0	0.48
$PM_{2.5}$	NA	NA	0	9	2.6	-6.4	2.56	2.6	10.0	0.30
CO	0	0	0	99	12	-87.1	11.93	11.9	99.0	0.21
NO_X [3]	0	0	0	39	39	0.0	44.31	39.0	39.0	0.14
SO_2	0	0	0	0.0	0.0	0.0	0.28	0.0	39.0	0.01
VOC	569	480	569	472	581	108.9	580.88	11.9	39.0	68.25
Single HAP[3]	0	0	0	9	9	0.0	14.16	9.0	10.0	0.93
Combined HAP[3]	0	0	0	24	24	0.0	30.64	24.0	25.0	2.94
GHG	0	0	0	74,000	49,519	-24,481	49,520	-24,481	75,000	5,346

(1) Baseline emission rate (BER) for VOC was adjusted for the inclusion of the new methodology for calculating emissions from tanks (EU: FR, IFR, & EFR), tank cleaning (EU: TC) emissions, the inclusion of the vaults and holding pond in EU: OWS emissions, EU: SUMP emissions and fugitive

(1) BER for PM, PM_{10}, CO, NO_X and SO_X is zero (0) as these pollutants were not evaluated.

(1) Baseline for $PM_{2.5}$ was not established in accordance with LRAPA 42-0048(3).

(2) Proposed netting basis is based on the updated VOC baseline. Netting has been corrected to reflect the change in the updated VOC BER, which was established.

(3) NO_X, single and combined HAP PSELs is set per LRAPA 42-0041(2), with the potential to emit greater than or equal to the SER.

Baseline Adjustments															
Emission Units	**PM**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**NO_X**	**SO_2**	**VOC**	**Benzene**	**Ethyl-benzene**	**n-Hexane**	**Toluene**	**Xylenes**	**2,2,2-Trimethly-pentane**	**POM as 16-PAH**	**Total HAP**
TANKs: (EUs: FR, IFR, & EFR)	0.00	0.00	0.00	0.00	0.00	0.00	122.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loading racks vapor control system with VCU (EU: T-RACK)	0.00	0.00	0.00	0.00	0.00	0.00	416.63	3.20	0.36	11.38	4.62	1.78	2.84	0.18	24.34
Tank Cleaning (EU: TC)	0.00	0.00	0.00	0.00	0.00	0.00	6.29	0.06	0.01	0.10	0.08	0.03	0.05	0.00	0.33
Oil/Water Separator with Vaults and Holding Pond (EJ: OWS)	0.00	0.00	0.00	0.00	0.00	0.00	16.57	0.15	0.02	0.27	0.22	0.08	0.13	0.01	0.87
Sumps (EU: Sumps)	0.00	0.00	0.00	0.00	0.00	`	6.00	0.05	0.01	0.10	0.08	0.03	Title V	0.00	0.27
Valves, Pumps, & Flanges (EU: FGTVOC)	0.00	0.00	0.00	0.00	0.00	0.00	0.99	0.01	0.00	0.02	0.01	0.00	0.01	0.00	0.05
Subtotal for EUs	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**568.98**	**3.45**	**0.38**	**11.85**	**4.99**	**1.92**	**3.02**	**0.19**	**25.81**

Information on Throughput		
Maximum Requested Throughput		
51,633,462	Barrels	per year
42	gallons	per barrel
2,168,605,404	gallon	per year
1,734,884,323	Gal/yr	Gasoline Throughput
433,721,081	Gal/yr	Diesel Throughput
80%	Assumed Gasoline Throughput	
20%	Assumed Diesel Throughput	
Throughput with Limit (40% Gasoline Throughput)		
51,633,462	Barrels	per year
42	gallons	per barrel
2,168,605,404	gallon	per year
693,953,729	Gal/yr	Gasoline Throughput
433,721,081	Gal/yr	Diesel Throughput
40%	Assumed of the 80% for Gasoline Throughput	
20%	Assumed Diesel Throughput	

Max Limit of 100% for Gasoline and 100% Throughput for Diesel												
					POUNDS PER YEAR							
Tank #	**Roof Type**	**Type of Fuel**	**Volume (gallons)**	**Type of Loss**	**VOC**	**Xylene**	**Trimethyl-pentane**	**Toluene**	**Naphthalene**	**Hexane**	**Ethyl-benzene**	**Benzene**
EG-01	Vertical Fixed	Distillate Fuel Oil #2	412,845	Working Loss	1,214.54					114.03		
				Breathing Loss	52.44							
EG-02	Vertical Fixed	Distillate Fuel Oil #2	824,962	Working Loss	1,677.52					160.20		
				Breathing Loss	102.44							
EG-03	Vertical Fixed	Distillate Fuel Oil #2	572,890	Working Loss	1,547.75					145.66		
				Breathing Loss	70.70							
EG-04	Vertical Fixed	Distillate Fuel Oil #2	206,828	Working Loss	1,366.66					125.35		
				Breathing Loss	26.07							
EG-05	Vertical Fixed	Distillate Fuel Oil #2	412,845	Working Loss	1,465.64					136.46		
				Breathing Loss	50.55							
EG-08	Vertical Fixed	Distillate Fuel Oil #2	210,000	Working Loss	1,366.66					125.41		
				Breathing Loss	26.80							
EG-09	Vertical Fixed	Distillate Fuel Oil #2	210,000	Working Loss	1,366.66					125.35		
				Breathing Loss	26.07							
EG-10	Vertical Fixed	Distillate Fuel Oil #2	412,845	Working Loss	1,465.64					136.46		
				Breathing Loss	50.55							
EG-11	Vertical Fixed	Distillate Fuel Oil #2	412,846	Working Loss	1,465.64					136.46		
				Breathing Loss	50.55							
EG-12	Vertical Fixed	Distillate Fuel Oil #2	215,936	Working Loss	1,368.23					125.66		
				Breathing Loss	28.01							
EG-13	Vertical Fixed	Distillate Fuel Oil #2	1,856,164	Working Loss	2,206.90					217.75		
				Breathing Loss	212.56							
EG-14	Internal Floating	Gasoline (RVP 15)	226,800	Rim Seal Loss	61.84	33.78	60.67	93.94	4.19	130.17	8.44	34.76
				Withdrawal Loss	2,794.83							
				Deck Fitting Loss	634.67							
		Gasoline (RVP 13.5)		Rim Seal Loss	51.11							
				Withdrawal Loss	2,096.12							
				Deck Fitting Loss	524.51							
		Gasoline (RVP 9)		Rim Seal Loss	72.14							
				Withdrawal Loss	3,493.53							
				Deck Fitting Loss	740.37							

Max Limit of 100% for Gasoline and 100% Throughput for Diesel												
					POUNDS PER YEAR							
Tank #	**Roof Type**	**Type of Fuel**	**Volume (gallons)**	**Type of Loss**	**VOC**	**Xylene**	**Trimethyl-pentane**	**Toluene**	**Naphthalene**	**Hexane**	**Ethyl-benzene**	**Benzene**
EG-15	Internal Floating	Gasoline (RVP 15)	126,000	Rim Seal Loss	517.94	45.50	82.29	126.91	5.64	179.75	11.36	48.90
				Withdrawal Loss	3,756.73							
				Deck Fitting Loss	613.79							
				Deck Seam Loss	64.94							
		Gasoline (RVP 13.5)		Rim Seal Loss	428.04							
				Withdrawal Loss	2,817.55							
				Deck Fitting Loss	507.26							
				Deck Seam Loss	53.66							
		Gasoline (RVP 9)		Rim Seal Loss	604.20							
				Withdrawal Loss	4,695.91							
				Deck Fitting Loss	716.02							
				Deck Seam Loss	75.75							
EG-16	Internal Floating	Gasoline (RVP 15)	1,050,000	Rim Seal Loss	94.31	22.11	40.64	62.11	2.73	92.33	5.52	24.59
				Withdrawal Loss	1,817.28							
				Deck Fitting Loss	777.16							
		Gasoline (RVP 13.5)		Rim Seal Loss	77.94							
				Withdrawal Loss	1,362.96							
				Deck Fitting Loss	642.28							
		Gasoline (RVP 9)		Rim Seal Loss	110.02							
				Withdrawal Loss	2,271.61							
				Deck Fitting Loss	906.60							
EG-17	Internal Floating	Gasoline (RVP 15)	1,050,000	Rim Seal Loss	94.31	22.11	40.64	62.11	2.73	92.33	5.52	24.59
				Withdrawal Loss	1,817.28							
				Deck Fitting Loss	777.16							
		Gasoline (RVP 13.5)		Rim Seal Loss	77.94							
				Withdrawal Loss	1,362.96							
				Deck Fitting Loss	642.28							
		Gasoline (RVP 9)		Rim Seal Loss	110.02							
				Withdrawal Loss	2,271.61							
				Deck Fitting Loss	906.60							
EG-18	Internal Floating	Gasoline (RVP 15)	1,050,000	Rim Seal Loss	911.67	33.27	61.82	93.92	4.09	144.10	8.30	37.75
				Withdrawal Loss	2,725.93							
				Deck Fitting Loss	701.40							
		Gasoline (RVP 13.5)		Rim Seal Loss	753.44							
				Withdrawal Loss	1,817.28							
				Deck Fitting Loss	579.67							
		Gasoline (RVP 9)		Rim Seal Loss	1,063.52							
				Withdrawal Loss	3,634.57							
				Deck Fitting Loss	818.23							

Max Limit of 100% for Gasoline and 100% Throughput for Diesel												
					POUNDS PER YEAR							
Tank #	**Roof Type**	**Type of Fuel**	**Volume (gallons)**	**Type of Loss**	**VOC**	**Xylene**	**Trimethyl-pentane**	**Toluene**	**Naphthalene**	**Hexane**	**Ethyl-benzene**	**Benzene**
EG-19	Internal Floating	Gasoline (RVP 15)	1,764,000	Rim Seal Loss	1,180.69	17.46	34.93	50.96	2.10	94.77	4.34	23.04
				Withdrawal Loss	1,398.06							
				Deck Fitting Loss	782.83							
		Gasoline (RVP 13.5)		Rim Seal Loss	975.76							
				Withdrawal Loss	1,048.55							
				Deck Fitting Loss	646.96							
		Gasoline (RVP 9)		Rim Seal Loss	1,377.34							
				Withdrawal Loss	1,747.58							
				Deck Fitting Loss	913.22							
EG-20	Internal Floating	Gasoline (RVP 15)	525,000	Rim Seal Loss	67.25	31.01	55.77	86.29	3.85	120.06	7.74	32.92
				Withdrawal Loss	2,564.91							
				Deck Fitting Loss	604.77							
		Gasoline (RVP 13.5)		Rim Seal Loss	55.58							
				Withdrawal Loss	1,923.68							
				Deck Fitting Loss	499.81							
		Gasoline (RVP 9)		Rim Seal Loss	78.46							
				Withdrawal Loss	3,206.14							
				Deck Fitting Loss	705.50							
EG-22	External Floating	Gasoline (RVP 15)	840,000	Rim Seal Loss	532.68	22.23	41.53	62.90	2.73	98.02	5.54	25.58
				Withdrawal Loss	1,817.77							
				Deck Fitting Loss	595.33							
		Gasoline (RVP 13.5)		Rim Seal Loss	449.95							
				Withdrawal Loss	1,363.33							
				Deck Fitting Loss	501.34							
		Gasoline (RVP 9)		Rim Seal Loss	668.70							
				Withdrawal Loss	2,272.22							
				Deck Fitting Loss	750.04							
EG-23	External Floating	Gasoline (RVP 15)	252,000	Rim Seal Loss	310.73	37.72	68.05	105.10	4.68	147.76	9.42	40.33
				Withdrawal Loss	3,116.18							
				Deck Fitting Loss	567.72							
		Gasoline (RVP 13.5)		Rim Seal Loss	262.47							
				Withdrawal Loss	2,337.14							
				Deck Fitting Loss	477.87							
		Gasoline (RVP 9)		Rim Seal Loss	390.07							
				Withdrawal Loss	3,895.23							
				Deck Fitting Loss	715.57							

Max Limit of 100% for Gasoline and 100% Throughput for Diesel												
					POUNDS PER YEAR							
Tank #	**Roof Type**	**Type of Fuel**	**Volume (gallons)**	**Type of Loss**	**VOC**	**Xylene**	**Trimethyl-pentane**	**Toluene**	**Naphthalene**	**Hexane**	**Ethyl-benzene**	**Benzene**
EG-24	External Floating	Gasoline (RVP 15)	588,000	Rim Seal Loss	441.09	39.63	71.66	110.54	4.91	156.51	9.89	42.58
				Withdrawal Loss	3,271.99							
				Deck Fitting Loss	564.13							
		Gasoline (RVP 13.5)		Rim Seal Loss	369.42							
				Withdrawal Loss	2,181.33							
				Deck Fitting Loss	470.81							
		Gasoline (RVP 9)		Rim Seal Loss	543.45							
				Withdrawal Loss	4,362.66							
				Deck Fitting Loss	697.82							
EG-25	Domed External Floating	Gasoline (RVP 15)	210,000	Rim Seal Loss	61.96	32.76	57.56	90.24	4.09	116.45	8.19	33.05
				Withdrawal Loss	2,723.66							
				Deck Fitting Loss	42.75							
		Gasoline (RVP 13.5)		Rim Seal Loss	51.33							
				Withdrawal Loss	2,044.99							
				Deck Fitting Loss	35.42							
		Gasoline (RVP 9)		Rim Seal Loss	72.67							
				Withdrawal Loss	3,408.32							
				Deck Fitting Loss	50.14							
EG-26	External Floating	Gasoline (RVP 15)	252,000	Rim Seal Loss	308.77	56.41	100.72	156.48	7.01	212.89	14.09	58.97
				Withdrawal Loss	4,674.27							
				Deck Fitting Loss	564.13							
		Gasoline (RVP 13.5)		Rim Seal Loss	258.60							
				Withdrawal Loss	3,116.18							
				Deck Fitting Loss	470.81							
		Gasoline (RVP 9)		Rim Seal Loss	380.42							
				Withdrawal Loss	6,232.37							
				Deck Fitting Loss	697.82							
EG-29	External Floating	Gasoline (RVP 15)	210,000	Rim Seal Loss	352.87	33.05	59.97	92.33	4.09	132.04	8.25	35.76
				Withdrawal Loss	2,726.66							
				Deck Fitting Loss	569.86							
		Gasoline (RVP 13.5)		Rim Seal Loss	295.54							
				Withdrawal Loss	2,044.99							
				Deck Fitting Loss	475.65							
		Gasoline (RVP 9)		Rim Seal Loss	434.76							
				Withdrawal Loss	3,408.32							
				Deck Fitting Loss	704.84							

Max Limit of 100% for Gasoline and 100% Throughput for Diesel												
					POUNDS PER YEAR							
Tank #	**Roof Type**	**Type of Fuel**	**Volume (gallons)**	**Type of Loss**	**VOC**	**Xylene**	**Trimethyl-pentane**	**Toluene**	**Naphthalene**	**Hexane**	**Ethyl-benzene**	**Benzene**
EG-30	External Floating	Gasoline (RVP 15)	210,000	Rim Seal Loss	352.87	33.05	59.97	92.33	4.09	132.04	8.25	35.76
				Withdrawal Loss	2,726.66							
				Deck Fitting Loss	569.86							
		Gasoline (RVP 13.5)		Rim Seal Loss	295.54							
				Withdrawal Loss	2,044.99							
				Deck Fitting Loss	475.65							
		Gasoline (RVP 9)		Rim Seal Loss	434.76							
				Withdrawal Loss	3,408.32							
				Deck Fitting Loss	704.84							
EG-31	External Floating	Gasoline (RVP 15)	294,000	Rim Seal Loss	352.87	33.05	59.97	92.33	4.09	132.04	8.25	35.76
				Withdrawal Loss	2,726.66							
				Deck Fitting Loss	569.86							
		Gasoline (RVP 13.5)		Rim Seal Loss	295.54							
				Withdrawal Loss	2,044.99							
				Deck Fitting Loss	475.65							
		Gasoline (RVP 9)		Rim Seal Loss	434.76							
				Withdrawal Loss	3,408.32							
				Deck Fitting Loss	704.84							
EG-32	External Floating	Gasoline (RVP 15)	420,000	Rim Seal Loss	396.98	29.43	53.72	82.43	3.64	120.04	7.34	32.25
				Withdrawal Loss	2,423.70							
				Deck Fitting Loss	564.13							
		Gasoline (RVP 13.5)		Rim Seal Loss	332.48							
				Withdrawal Loss	1,817.77							
				Deck Fitting Loss	470.81							
		Gasoline (RVP 9)		Rim Seal Loss	489.11							
				Withdrawal Loss	3,029.62							
				Deck Fitting Loss	697.82							
EG-35	Vertical Fixed Floating	Distillate Fuel Oil No. 2	412,845	Working Loss	1,465.64					136.46		
				Breathing Loss	50.55							
EG-36	Internal Floating	Gasoline (RVP 15)	1,134,000	Rim Seal Loss	100.50	20.71	37.91	58.07	2.56	85.32	5.17	22.83
				Withdrawal Loss	1,703.76							
				Deck Fitting Loss	649.10							
		Gasoline (RVP 13.5)		Rim Seal Loss	83.05							
				Withdrawal Loss	1,277.82							
				Deck Fitting Loss	536.44							
		Gasoline (RVP 9)		Rim Seal Loss	117.23							
				Withdrawal Loss	2,129.70							
				Deck Fitting Loss	757.21							

Max Limit of 100% for Gasoline and 100% Throughput for Diesel												
					POUNDS PER YEAR							
Tank #	**Roof Type**	**Type of Fuel**	**Volume (gallons)**	**Type of Loss**	**VOC**	**Xylene**	**Trimethyl-pentane**	**Toluene**	**Naphthalene**	**Hexane**	**Ethyl-benzene**	**Benzene**
EG-37	Internal Floating	Gasoline (RVP 15)	1,470,000	Rim Seal Loss	65.71	31.76	57.10	88.36	3.94	122.90	7.93	33.70
				Withdrawal Loss	2,626.65							
				Deck Fitting Loss	619.72							
		Gasoline (RVP 13.5)		Rim Seal Loss	54.30							
				Withdrawal Loss	1,969.99							
				Deck Fitting Loss	512.16							
		Gasoline (RVP 9)		Rim Seal Loss	76.65							
				Withdrawal Loss	3,283.31							
				Deck Fitting Loss	722.94							
EG-38	Internal Floating	Gasoline (RVP 15)	704,970	Rim Seal Loss	206.14	26.96	48.84	75.25	3.34	107.12	6.73	29.07
				Withdrawal Loss	2,224.95							
				Deck Fitting Loss	538.29							
		Gasoline (RVP 13.5)		Rim Seal Loss	170.36							
				Withdrawal Loss	1,668.72							
				Deck Fitting Loss	444.87							
		Gasoline (RVP 9)		Rim Seal Loss	240.48							
				Withdrawal Loss	2,781.19							
				Deck Fitting Loss	627.95							
EG-39	Internal Floating	Gasoline (RVP 15)	1,050,000	Rim Seal Loss	94.31	22.05	40.17	61.71	2.73	89.33	5.50	24.07
				Withdrawal Loss	1,817.28							
				Deck Fitting Loss	614.05							
		Gasoline (RVP 13.5)		Rim Seal Loss	77.94							
				Withdrawal Loss	1,362.96							
				Deck Fitting Loss	507.47							
		Gasoline (RVP 9)		Rim Seal Loss	110.02							
				Withdrawal Loss	2,271.61							
				Deck Fitting Loss	716.32							
EG-40	Internal Floating	Gasoline (RVP 15)	2,520,000	Rim Seal Loss	146.88	14.37	28.00	41.43	1.74	72.24	3.57	18.00
				Withdrawal Loss	1,160.15							
				Deck Fitting Loss	1,134.05							
		Gasoline (RVP 13.5)		Rim Seal Loss	121.38							
				Withdrawal Loss	870.11							
				Deck Fitting Loss	937.22							
		Gasoline (RVP 9)		Rim Seal Loss	171.34							
				Withdrawal Loss	1,450.19							
				Deck Fitting Loss	1,322.93							

Max Limit of 100% for Gasoline and 100% Throughput for Diesel												
					POUNDS PER YEAR							
Tank #	**Roof Type**	**Type of Fuel**	**Volume (gallons)**	**Type of Loss**	**VOC**	**Xylene**	**Trimethyl-pentane**	**Toluene**	**Naphthalene**	**Hexane**	**Ethyl-benzene**	**Benzene**
EG-41	Internal Floating	Distillate Fuel Oil No. 2	2,520,000	Rim Seal Loss	1.78					105.11		
				Withdrawal Loss	1,160.64							
				Deck Fitting Loss	5.50							
EG-42	Internal Floating	Gasoline (RVP 15)	2,520,000	Rim Seal Loss	146.88	15.09	29.27	43.43	1.83	74.78	3.76	18.73
				Withdrawal Loss	1,220.58							
				Deck Fitting Loss	1,134.05							
		Gasoline (RVP 13.5)		Rim Seal Loss	121.38							
				Withdrawal Loss	915.43							
				Deck Fitting Loss	937.22							
		Gasoline (RVP 9)		Rim Seal Loss	171.34							
				Withdrawal Loss	1,525.72							
				Deck Fitting Loss	1,322.93							
Pollutant					**VOC**	**Xylene**	**Trimethyl-pentane**	**Toluene**	**Naphthalene**	**Hexane**	**Ethyl-benzene**	**Benzene**
TOTAL (lb/yr)					245,072.19	653.51	1,191.20	1,829.17	80.80	4,443.35	163.10	712.99
TOTAL (tpy)					**122.54**	**0.33**	**0.60**	**0.91**	**0.04**	**2.22**	**0.08**	**0.36**

EPA AP-42, *Fifth Edition Compilation of Air Pollutants Emissions Factors, Volume 1: Stationary Point and Area Sources:* Chapter 7, Section 7.1: Organic Liquid Storage Tanks, amended 2020 was used to calculate emissions from the tanks.

Tanks: Diesel Vapor HAP Speciation Data (Weight %)			
HAP	Weight % Diesel [1]	Emissions	
		lb/yr	tpy
Benzene	0.00%	0.00	0.00
Ethyl Benzene	0.00%	0.00	0.00
n-Hexane	9.00%	1,783.62	0.89
Toluene	0.00%	0.00	0.00
Xylenes	0.00%	0.00	0.00
2,2,4-Trimethylpentane	0.00%	0.00	0.00
POM as 16-PAH (Naphthalene)	0.00%	0.00	0.00
Totals		**1,783.62**	**0.89**
1 Weight percentage for diesel vapor are from Identification of Volatile Organic Compound Species Profiles, CARB 1991			

Tankls: Gasoline Vapor HAP Speciation Data (Weight %)			
HAP	Weight % Gasoline [1]	Emissions	
		lb/yr	tpy
Benzene	0.90%	2,026.62	1.01
Ethyl Benzene	0.10%	225.18	0.11
n-Hexane	1.60%	3,602.87	1.80
Toluene	1.30%	2,927.33	1.46
Xylenes	0.50%	1,125.90	0.56
2,2,4-Trimethylpentane	0.80%	1,801.44	0.90
POM as 16-PAH (Naphthalene)	0.05%	112.59	0.06
Totals		**11,821.92**	**5.91**
1. Weight percentages for gasoline vapor are from Gasoline Marketing (Stage I and Stage II), Volume III, Chapter 11, revised final, Area Source Committee, Emission Inventory Improvement Program, January 2001, Table 11.3-2.			

Tanks Maximum Throughput HAPs Emission by Speciation				
HAP	Diesel	Gasoline	Total	
	lb/yr	lb/yr	lb/yr	**tons/yr**
Benzene	0.00	2,026.62	2,026.62	**1.01**
Ethyl Benzene	0.00	225.18	225.18	**0.11**
n-Hexane	0.00	3,602.87	3,602.87	**1.80**
Toluene	0.00	2,927.33	2,927.33	**1.46**
Xylenes	0.00	1,125.90	1,125.90	**0.56**
2,2,4-Trimethylpentane	0.00	1,801.44	1,801.44	**0.90**
POM as 16-PAH (Naphthalene)	0.00	112.59	112.59	**0.06**
Totals			**11,821.92**	**5.91**

T-RACK VOC PTE Emission Calculations (Maximum Throughput)

Product [1]	Throughput (1,000 gals) [2]	Fugitive Vapors EF [3] (lb/1,000 gals)	VRU Stack EF Factors [4] (lb/1,000 gals)	Fugitives (lb/yr)	VCU (or VRU) Stack (lb/yr)	Total (lb/yr)	Total (tpy)
Gasoline RVP 12	1,734,884	0.11524	0.292	199,925	506,586	706,511	353.26
Diesel	433,721	0.00023	0.292	98	126,647	126,744	63.37
Total						833,255	**416.63**

(1) Based on the average RVP, average was calculated based on data from the Microsoft SQL Server Database System: Emission Inventory Tracking (EIT) application and Gasoline RVP 12 is the average of the gasoline products that are stored. The gasoline type stored are RVP 15, 13.5 and 9.

(2) Permit Limit: Loading Racks are limited to 51,633,462 barrels (2,168,605,404 gallons) per 12-month rolling period. It is assumed that 80% of the loaded product is gasoline and 20% loaded is diesel.

(3) Fugitive Emission Factors are based on EPA AP-42 Fifth Edition, Volume 1: Chapter 5.2: Transportation and Marketing of Petroleum Liquids, Loading Loss Equation

$$Fugitive\ Emission\ Factor = 12.46 \left[\frac{(S * P * M)}{T}\right](1 - 0.987)$$

Where:	12.46 =	Constant
	S =	A saturation factor found in AP-42, Chapter 5.2, Table 5.2-1
	P =	True vapor pressure of liquid loaded, pounds per square inch absolute (psia) (See EPA AP-42, Chapter 7.1)
	M =	Molecular weight of vapors, pounds per pound-mole (lb/lb-mole) (See EPA AP-42, Chapter 7.1)
	T=	Temperature of bulk liquid loaded, °R (°F + 460)
	eff	Capture efficiency = 98.7%: The collection efficiency suggested by EPA, in EPA's Notice of Proposed Changed to AP-42 Section 5.2, dated December 15, 1995 for trucks meeting a 3-inch water column decay test.

Fuel	Saturation Factor	Vapor Pressure [5] (psia)	Molecular Weight [6] (lb/lb-mole)	Temperature R= F + 460	Fugitive Vapor EF (lb/1,000 gal)
Gasoline RVP 12	1	5.7584	63.4167	513.3	**0.11524**
Diesel	1	0.0055	130	513.3	**0.00023**

(4) VCU Stack Emission Factor: Per 40 CFR 60.502(b) of EPA 40 CFR part 60 subpart XX - Standards of Performance for Bulk Gasoline Terminals applies to the SFPP Eugene terminal. This NSPS includes an emission limit of 35 milligrams per liter (0.292 lb/1000 gal) of gasoline loaded. Therefore, the emission factor used to calculate VOC emissions as a cannot exceed this limit (amount of emissions). The facility has taken a limit on HAP emissions under the major source threshold so the facility is not subject to the requirements of 40 CFR part 63 subpart R: National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)

(5) Vapor Pressure: based on the average vapor pressure, average was calculated using the data from the updated TANKs information in EPA AP-42 Fifth Edition, Volume 1: Chapter 7.1.

(6)Molecular Weight: based on the average molecular weight, average was calculated using the data from the updated TANKs information in EPA AP-42 Fifth Edition, Volume 1: Chapter 7.1.

T-RACK: Maximum Throughput of Total of All Fuels Vapor HAPs Speciation Data (Weight %)					
HAP	**Gasoline (lb/yr)**	**Diesel (lb/yr)**	**Ethanol (lb/yr)**	**HAP Emissions**	
				lb/year	**ton/year**
Benzene	6,358.60	0.00	31.79	6,390.39	3.20
Ethyl Benzene	706.51	0.00	3.53	710.04	0.36
n-Hexane	11,304.17	11,407.00	56.52	22,767.69	11.38
Toluene	9,184.64	0.00	45.92	9,230.56	4.62
Xylenes	3,532.55	0.00	17.66	3,550.22	1.78
2,2,4- Trimethylpentane	5,652.09	0.00	28.26	5,680.35	2.84
POM as 16-PAH	353.26	0.00	2.12	355.37	0.18
Total for all Fuels				**48,684.62**	**24.34**

Ethanol Unloading Throughput Information (EU: EtOH)		
Maximum amount of ethanol unloaded:	216,860,540	gallons/year
Capacity of one tanker truck:	8,400	gallons
Total number of trucks	25,817	per year
Assumed compartments per truck:	1	
Maximum number of unloading events:	25,817	per year
Pump sleeve volume (Throughput assumed per loading event):	300	gallons
Maximum product for emission estimation:	7,745,100	gallons

Ethanol Unloading VOC PTE Emission Calculations (EU: EtOH)									
Fuel	Saturation Factor	Vapor Pressure psia	Molecular weight (lb/lb-mole)	Temperature R = F + 460	Emission Factor [(1)] (lb/1000 gal)	Throughputs		Annual Emission	
						(gal/day)	(gal/yr)	lb/yr	tpy
Denatured Ethanol RVP 4	1	1.7	48.00	513.28	1.98	21,219	7,745,100	15,342	**7.67**

(1) Uncontrolled Emission Factor for Unloading is based on EPA AP-42, *Fifth Edition Compilation of Air Pollutants Emissions Factors, Volume 1: Stationary Point and Area Sources* : Chapter 5 Petroleum Industry Section 5.2 Transportation and Marketing of Petroleum Liquids

$$L_L = 12.46 \times \frac{SPM}{T}$$

Where:		
	L_L =	Loading Loss, pounds per 1000 gallons (lb/10^3 gal) of liquid loaded
	S =	A Saturation Factor: Mode of Operation: Submerged loading: dedicated vapor balance service with a S-Factor = 1 (See AP-42, Chapter 5, Section 5.2 Table 5.2-1)
	P =	True vapor pressure of liquid loaded, pounds per square inch absolute (psia) (See AP-42, Chapter 7, Section 7.1: "Organic Liquid Storage Tanks
	M =	Molecular Weight of Vapors (lb/lb-mole)
	T =	Temperature °R (F+460): Daily average ambient temperature for Eugene of 53.28 °F

Ethanol Unloading HAP Speciation Date (Weight %) Calculations (EU: EtOH)			
HAP	Weight % Baseline Gasoline	Emissions (lb/yr)	Emissions (ton/yr)
Benzene	0.045%	6.90	0.0035
Ethyl Benzene	0.005%	0.77	0.0004
n-Hexane	0.080%	12.27	0.0061
Toluene	0.065%	9.97	0.0050
Xylenes	0.025%	3.84	0.0019
2,2,4-Trimethylpentane	0.040%	6.14	0.0031
POM as 16-PAH (Naphthalen	0.003%	0.46	0.0002
Totals		**40.35**	**0.02**

John Zink Enclosed Flare (VCU): 80 MMBtu/hr: 4 Burners							
Pollutant	**Max Design Capacity (MMscf)**	**Emission Factors (lb/MMscf)**	**Hourly Emissions (lb/hr)**	**Annual Capacity Emissions (tons/year)**	**SFPP Requested Limits (tons/yr)**	**Annual Limited Emissions based on NO_X limit**	**SER (tons/year)**
PM/PM10/PM2.5	681.71	7.50	0.58	2.56	NA	**2.25**	24/14/9
CO	681.71	35	2.72	11.93	NA	**10.50**	99
NOx	681.71	130	10.12	44.31	**39**	**39**	**39**
SO2	681.71	0.83	0.06	0.28	NA	**0.25**	39
VOC	681.71	7.00	0.54	2.39	NA	**2.10**	39
The Flare can operate 8,760 hours per year							
The Flare is rated at 80 MMBtu/hr with 4 burners							
The Flare operates at a maximum rate of 681.71 million cubic feet per year							
Gaseous emission factors were obtained from South Coast Air Quality Management District, Rule 1118, "Control of Emissions from Refinery Flares", Adopted February 13, 1998 (Amended November 4, 2005)(Amended July 7, 2017): Natural Gas assuming HHV of natural gas is 1,028 Btu/scf							
Annual Emissions (in tons) = Maximum gas usage x emission factor							
Annual Emissions based on NOx limit of 39 tons divided up 44.31 tons (PTE) equals 0.88 (88%).							

NO_X limit basis for reduction for all other pollutants		
NO_X PTE	44.31	tpy
NO_X Limit	39	tpy
Percent	88.01%	

John Zink Enclosed Flare (VCU): HAPs Speciation Data (Weight %)		
HAP	**Weight % Baseline Gasoline [(1)]**	**Emissions ton/year**
Benzene	0.90%	0.02
Ethyl Benzene	0.10%	0.00
n-Hexane	1.60%	0.04
Toluene	1.30%	0.03
Xylenes	0.50%	0.01
2,2,4- Trimethylpentane	0.80%	0.02
POM as 16-PAH	0.05%	0.00
Totals		**0.13**
1. Weight percentages for gasoline vapor are from Gasoline Marketing (Stage I and Stage II), Volume III, Chapter 11, revised final, Area Source Committee, Emission Inventory Improvement Program, January 2001,		

EU: FGTVOC Information:		
Total Throughput	2,168,605,404	gallons/year
Gasoline Throughput 80% of Total	1,734,884,323	gallons/year
Diesel Throughput (20% of Total)	433,721,081	gallons/year

GHG Combined Emission Factor		
Heat Value - Motor Gasoline[(1)]	0.125	MMBtu/gal
Motor Gasoline GHG Heat Value is based the combustion 'Fuel Lookup' tab of DEQ's *Fuel Combustion Greenhouse Gas Calculator.*		

Criteria Pollutants		
Pollutant	**Motor Gasoline Emission Factor**	**EF Units**
GHG (CO_2 equivalate)	155.37	lb/MMBtu
MMBtu is equal to 0.96432 Mcf and to convert Mcf to MMcf must multiply by 0.001		

GHG-Related Emission Factors		
Pollutant	**Motor Gasoline (kg/MMBtu)[(1)]**	**GWP[(2)]**
Carbon Dioxide (CO_2)	70.22	1
Methane (CH_4)	3.00E-03	25
Nitrous Oxide (N_2O)	6.00E-04	298
1. Motor Gasoline GHG emission factors are based the combustion 'Fuel Lookup' on DEQ *Fuel Combustion Greenhouse Gas Calculator* .		
2. Greenhouse warming potential		

Fugitive VOC (EU: FGTVOC) PTE Emission Calculations								
			Emission Factors [1]		Emissions [2]		Total Emissions	
Count			Light Liquid	Gas	Light Liquid	Gas		
Component	Light	Gas	(kg/hr/component)		(lb/yr)	(lb/yr)	lb/yr	typ
Valves	448	793	4.30E-05	1.30E-05	371.26	198.68	569.93	0.28
Pumps	10	23	5.40E-04	6.50E-05	104.07	28.81	132.88	0.07
Fittings (flanges and connectors)	723	1,451	8.00E-06	4.20E-05	111.47	1,174.47	1,285.94	0.64
Total							**1,989**	**0.99**
(1) The emission factors used are from Table 2-3 of *Equipment Leak Emission Estimates* , US Environmental Protection Agency, Office of Air Quality Planning and Standards, EPA-453/R-95-017, November 1995								
(2) The conversion factor used to convert kilograms to pounds is 2.2.								

EU: FGTVOC - Gasoline Vapor HAPs Speciation Data (Weight %)			
HAP	Weight % [1]	Emissions	
		(lb/yr)	(tpy)
Benzene	0.90%	17.90	0.01
Ethyl Benzene	0.10%	1.99	0.00
n-Hexane	1.60%	31.82	0.02
Toluene	1.30%	25.85	0.01
Xylenes	0.50%	9.94	0.00
2,2,4-Trimethylpentane	0.80%	15.91	0.01
POM as 16-PAH (Naphthalene)	0.05%	0.99	0.00
Totals		**104.41**	**0.05**
1. Weight percentage for gasoline vapor are from *Gasoline Marketing (Stage I and Stage II)* Volume III, Chapter 11, revised final, Area Source Committee, Emission Inventory Improvement Program, January 2001. Table 11.3.2.			

2022 Storage Tank Cleaning (EU: TC) PTE Emissions - TANKs Software			
Tank Identification	**Tank Type**	**VOC**	**Product**
		lb/yr	
EG-14	Internal Floating Roof	395.95	Gasoline
EG-15	Internal Floating Roof	222.72	Gasoline
EG-16	Internal Floating Roof	582.15	Gasoline
EG-17	Internal Floating Roof	582.15	Gasoline
EG-18	Internal Floating Roof	582.15	Gasoline
EG-19	Internal Floating Roof	789.46	Gasoline
EG-20	Internal Floating Roof	431.70	Gasoline
EG-22	External Floating Roof	403.38	Gasoline
EG-23	External Floating Roof	188.89	Gasoline
EG-24	External Floating Roof	332.00	Gasoline
EG-25	Domed Floating Roof	395.95	Gasoline
EG-26	External Floating Roof	188.89	Gasoline
EG-29	External Floating Roof	268.98	Gasoline
EG-30	External Floating Roof	268.98	Gasoline
EG-31	External Floating Roof	268.98	Gasoline
EG-32	External Floating Roof	303.84	Gasoline
EG-36	Internal Floating Roof	623.61	Gasoline
EG-37	Internal Floating Roof	424.63	Gasoline
EG-38	Internal Floating Roof	481.70	Gasoline
EG-39	Internal Floating Roof	582.15	Gasoline
EG-40	Internal Floating Roof	1,018.49	Gasoline
EG-41	Internal Floating Roof	1,018.49	Gasoline
EG-42	Internal Floating Roof	2,233.39	Gasoline
Total		12,588.63	lb/year
		6.29	tons/year

1. Cleaning losses are based on EPA AP-42 EPA AP-42, *Fifth Edition Compilation of Air Pollutants Emissions Factors, Volume 1: Stationary Point and Area Sources* : Chapter 7 Section 7.1: Organic Liquid Storage Tanks, amended 2020, Equation 7.1.3.4 Tank Cleaning Emissions

2. Cleaning losses are based on maximum throughput of 2,168,605,404 gals/year: 20% Diesel and 80% Gasoline

	$L_{FV} = L_P + L_{CV}$
Where:	L_{FV} = Total emissions due to forced ventilation during a tank cleaning event (in pounds)
	L_P = Vapor space purge emissions associated with the first air change following commencement of forced ventilation (in pounds)
	L_{CV} = Emissions from continued forced ventilation following the first air change (in pounds)

EU: TC - Gasoline Vapor HAP Speciation Data (Weight %)			
HAP	**Weight % Gasoline** [(1)]	**Emissions**	
		lb/yr	**tpy**
Benzene	0.90%	113.30	0.06
Ethyl Benzene	0.10%	12.59	0.01
n-Hexane	1.60%	201.42	0.10
Toluene	1.30%	163.65	0.08
Xylenes	0.50%	62.94	0.03
2,2,4-Trimethylpentane	0.80%	100.71	0.05
POM as 16-PAH (Naphthalene)	0.05%	6.29	0.00
Totals		660.90	**0.33**
1 Weight percentage for gasoline vapor are from Gasoline Marketing (Stage I and Stage II)			

EU: OWS - Oil Water Separator and Vaults VOC Emission Calculations						
Source	Throughput [1]		Emission Factor [2]	Emission Factor [2]	Total Emissions	
	gal/month	gal/yr	(lb/1,000 gal)	lb/gal	(lb/yr)	(tpy)
Oil Water Separator	2,000,000	50,000,000	0.20	0.0002	10,000	**5.0**
Vaults (Debris Traps)	2,000,000	50,000,000	0.20	0.0002	10,000	**5.0**
Totals					**20,000**	**10**
(1) Throughput is based on the maximum amount of rain the facility could potentially receive in a month and year.						
(2) Fugitive Emission Factors are based on *EPA AP-42: Compilations of Air Emission Factors,* Fifth Edition, Volume 1: Chapter 5, Section 5.1: Petroleum Refining, Table 5.1-3, using the controlled EF.						

EU: OWS - Holding Pond VOC Emission Calculation				
Source	Surface Area	Emission Factor [1]	VOC Emissions	
	(ft^2)	(lb/surface area)	(lb/yr)	(tpy)
Holding Pond	4,693	2.80	13,140	**6.57**
(1) The emission factor used for the evaporative losses of the holding pond are based on South Coast Air Quality Management District's (SCAQMD) default emission factor for open pond/ditches at an oil and gas reduction facilities and refineries.				

EU: OSW - Gasoline Vapor HAPs Speciation Data (Weight %)			
HAPs	**Weight % (1)**	**Emissions**	
		(lb/yr)	**(tpy)**
Benzene	0.90%	298	0.1491
Ethyl Benzene	0.10%	33	0.0166
n-Hexane	1.60%	530	0.2651
Toluene	1.30%	431	0.2154
Xylenes	0.50%	166	0.0829
2,2,4-Trimethylpentane	0.80%	265	0.1326
POM as 16-PAH (Naphthalene)	0.05%	17	0.0083
Totals		**1,740**	**0.87**
(1) Weight percentage for gasoline vapor are from Gasoline Marketing (Stage I and Stage II) Volume III, Chapter 11, revised final, Area Source Committee, Emission Inventory Improvement Program, January 2001, Table 11.3.2.			

EU: SUMP Information:		
Prover, Rack and Main Line throughput	1,445,400	gallons per year

EU: SUMP VOC Calculations			
Sources of Emissions:	**VOC Emission Factor (lb/1,000 gals)***	**VOC Uncontrolled Emissions (lbs/yr)**	**VOC Emissions (tpy)**
Submerged Fill	7.30	10,551	5.28
Underground tank breathing and emptying	1.00	1,445	0.72
Totals		**11,997**	**6.00**
EPA AP-42, Fifth Edition Compilation of Air Pollutant Emissions Factors, Volume 1, Chapter 5 - Section 5.2: Transportation and Marketing of Petroleum Liquids, Table 5.2-7			

EU: SUMP - Gasoline Vapor HAPs Speciation Data (Weight %)			
HAP	Weight % [1]	Emissions	
		(lb/yr)	(tpy)
Benzene	0.90%	107.971	0.0540
Ethyl Benzene	0.10%	11.997	0.0060
n-Hexane	1.60%	191.949	0.0960
Toluene	1.30%	155.959	0.0780
Xylenes	0.50%	59.984	0.0300
2,2,4-Trimethylpentane	0.80%	95.975	0.0480
POM as 16-PAH (Naphthalene)	0.05%	5.998	0.0030
Totals		**629.83**	**0.31**

1. Weight percentage for gasoline vapor are from *Gasoline Marketing (Stage I and Stage II)* Volume III, Chapter 11, revised final, Area Source Committee, Emission Inventory Improvement Program, January 2001. Table 11.3.2.

EU: OSU - Offspec Unloading Information		
Total number of trucks	52	trucks/year
Throughput assumed per unloading event	8,000	gallons per truck
Maximum offspec product for emission estimations	416,000	gallons per year

EU: OSU - VOC PTE Emission Calculations									
Fuel	**Saturation Factor**	**Vapor Pressure psia**	**Molecular weight (lb/lb-mole)**	**Temperature R = F + 460**	**Emission Factor (1) (lb/1000 gal)**	**Throughputs**		**Annual Emission**	
						(gal/day)	**(gal/yr)**	**lb/yr**	**tpy**
Offspec	1	5.7584	63.42	513.28	8.86	1,140	416,000	3,688	**1.84**

(1) Uncontrolled Emission Factor for Off Spec Fuel Unloading is based on EPA AP-42, *Fifth Edition Compilation of Air Pollutants Emissions Factors, Volume 1,* Chapter 5, Section 5.2 Transportation and Marketing of Petroleum Liquids

$$L_L = 12.46 \times \frac{SPM}{T}$$

Where:	L_L =	Loading Loss, pounds per 1000 gallons (lb/10^3 gal) of liquid loaded
	S =	A Saturation Factor: Mode of Operation: Submerged loading: dedicated vapor balance service with a S-Factor = 1 (see AP-42, Chapter 5, Section 5.2 Table 5.2-1)
	P =	True vapor pressure of liquid loaded, pounds per square inch absolute (psia) (See AP-42, Chapter 7, Section 7.1: "Organic Liquid Storage Tanks
	M =	Molecular Weight of Vapors (lb/lb-mole)
	T =	Temperature °R (F+460): Daily average ambient temperature for Eugene of 53.28 °F

EU: OSU HAP Speciation Date (Weight %) Calculations			
HAP	**Weight % Baseline Gasoline**	**Emissions (lb/yr)**	**Emissions (ton/yr)**
Benzene	0.90%	33.19	0.0166
Ethyl Benzene	0.10%	3.69	0.0018
n-Hexane	1.60%	59.00	0.0295
Toluene	1.30%	47.94	0.0240
Xylenes	0.50%	18.44	0.0092
2,2,4-Trimethylpentane	0.80%	29.50	0.0148
POM as 16-PAH (Naphthalene)	0.05%	1.84	0.0009
Totals		**193.61**	**0.10**
(1) Weight percentage for gasoline vapor are from Gasoline Marketing (Stage I and Stage II) Volume III, Chapter 11, revised final, Area Source Committee, Emission Inventory Improvement Program, January 2001, Table			

Roof Landing Losses Calculaitons				
Equations 3-1, 3-7, and 3-18 and associated factors for roof landings from Chapter 7: Liquid Storage Tanks of U.S. EPA's AP-42, Fifth Edition (June 2020).				
AP-42: Equation 3-1	$L_{TL} = L_{SL} + L_{FL}$			
Data and Calculations	Where		Description	Unit
0.51	**L_{TL}**	**=**	**Total Losses during roof landing, ton per year (1 landing per year)**	**tons**
1015.954	L_{TL}	=	Total Losses during roof landing, pounds per landing episode	lbs
521.741	L_{SL}	=	Standing idle losses during roof landing, pounds per landing episode	lbs
494.212	L_{FL}	=	Filling losses during roof landing, pounds per landing episode	lbs
AP-42: Equation 3-10	$L_{SL\,wind} = 0.57\ n_d\ D\ P^*\ M_v$			
Data and Calculations	Where		Description	Unit
521.741	$L_{SL\,wind}$	=	Standing idle loss due to wind, per landing episode	lbs
0.57	0.57	=	Constant	
2	N_d	=	Number of days that the tank is standing idle	day
60	D	=	Tank diameter	feet
0.11385	P*	=	A vapor pressure function, dimensionless	
67	M_V	=	Stock vapor molecular weight	lb/lb-mole
AP-42: Equation 3-4	$L_{SL\,max} = 5.9 * D^2 * h_{le} * W_l$			
Data and Calculations	Where		Description	Unit
713664	$L_{SL\,max}$	=	Limit on standing idle loss, per landing episode	lbs
5.9	5.9	=	Constant (Equation 3-3: $(\pi/4 * 7.48)$	gal/ft^3
60	D	=	diameter of the tank	feet
6	h_{le}	=	Effective height of the stock liquid	feet
5.6	W_1	=	Density of the liquid inside the tank	lb/gal

AP-42: Equation 3-18	$L_{FL} = \left(\frac{P_{VA}V_V}{RT_V}\right) M_V (C_{sf} S)$			
Data and Calculations	Where		Description	Unit
494.212	L_{FL}	=	Filling loss during roof landing	lbs
5.34361	P_{VA}	=	True vapor pressure of the liquid within the tank	psia
16964.6	V_V	=	Volume of the vapor space	ft^3
10.731	R	=	Ideal gas constant, 10.731	psia-ft3/(lb-mole-°R)
527.27	T_V	=	Average temperature of the vapor below the floating roof	°R
67	M_V	=	Stock vapor molecular weight	lb/lb-mole
0.76733	C_{sf}	=	Filling saturation correction factor for wind, 1	
0.6	S	=	Filling saturation factor, dimensionless (0.60 for full liquid heel; 0.50 for partial liquid heel)	

AP-42: Equation 3-16	$L_{FL} \le (5.9*D^2*h_{le}*W_l) - L_{SL} + 0.15*P_{VA}*V_V/R*T_V*M_V$			
Data and Calculations	Where		Description	Unit
494.212	L_{FL}	=	Filling loss during roof landing	lbs
5.9	5.9	=	Constant (Equation 3-3: (π/4 * 7.48)	gal/ft^3
60	D	=	diameter of the tank	feet
6	h_{le}	=	Effective height of the stock liquid	feet
5.6	W_1	=	Density of the liquid inside the tank, (5.6 lb/gal for gasoline)	lb/gal
521.741	L_{SL}	=	Standing idle losses during roof landing, pounds per landing episode	lbs
5.34361	P_{VA}	=	True vapor pressure of the liquid within the tank	psia
16964.6	V_V	=	Volume of the vapor space	ft3
10.731	R	=	Ideal gas constant, 10.731	$psia-ft^3/(lb-mole-°R)$
2	n_d	=	number of days in a year, days/yr	
527.27	T_V	=	Average temperature of the vapor below the floating roof	°R
67	M_V	=	Stock vapor molecular weight	lb/lb-mole

AP-42: Equation 3-21	$C_{sf} = 1 - ((0.57 \cdot 1 \cdot D \cdot P^* \cdot M_V) - (1 \cdot K_E \cdot (P_{VA} \cdot V_V / R \cdot T_V) \cdot M_V \cdot K_S)/(1 \cdot K_E \cdot (P_{VA} \cdot V_V/R \cdot T_V) \cdot Mv \cdot Ks) + ((P_{VA} \cdot V_V/R \cdot T_V) \cdot M_V \cdot (1 \cdot S))$			
Data and Calculations	Where		Description	Unit
0.76733	C_{sf}	=	Filling saturation correction factor for wind, dimensionless	
1	n_d	=	set equal to 1	days
0.22647	K_E	=	Vapor space expansion factor, per day, calculated from Equations 1-5, 1-12 or 1-13 as appropriate, with the value of ΔP_B set equal to zero	
16964.6	V_V	=	Volume of the vapor space: VV = $(H_V \cdot \pi \cdot D^2)/4$	ft^3
6	H_V	=	Height of the vapor space under the floating roof, D = tank diameter	feet
60	D	=	diameter of the tank	feet
10.731	R	=	Ideal gas constant, 10.731	psia-ft^3/(lb-mole-°R)
67	M_V	=	Stock vapor molecular weight	lb/lb-mole
0.37047	K_S	=	Standing idle saturation factor, dimensionless	
0.6	S	=	Filling saturation factor, dimensionless	
0.11385	P*	=	Vapor pressure function, dimensionless	
5.6	W_1	=	Density of the liquid inside the tank, (5.6 lb/gal for gasoline)	lb/gal
5.34361	P_{VA}	=	True Vapor pressure of the liquid within the tan	psia
14.558	P_A	=	Atmospheric pressure, psia = 14.558 psia from Table 7.1.7 for Eugene OR	psia
527.27	T_V	=	Average temperature of the vapor below the floating roof	°R

Roof Landing Losses: Gasoline Vapor HAPs Speciation Data (Weight %)			
HAPs	**Weight % [(1)]**	**Emissions**	
		(lb/yr)	**(tpy)**
Benzene	0.90%	9.14	0.005
Ethyl Benzene	0.10%	1.02	0.001
n-Hexane	1.60%	16.26	0.008
Toluene	1.30%	13.21	0.007
Xylenes	0.50%	5.08	0.003
2,2,4-Trimethylpentane	0.80%	8.13	0.004
POM as 16-PAH (Naphthalene)	0.05%	0.51	0.000
Totals			**0.03**
(1) Weight percentage for gasoline vapor are from Gasoline Marketing (Stage I and Stage II) Volume III, Chapter 11, revised final, Area Source Committee, Emission Inventory Improvement Program, January 2001, Table 11.3.2.			

Prover: Conversion Factors			
1 gallon (gal)	=	0.00379	m3
1 pounds per square inch (psi)	=	703.07	kg/m2
R (ideal gas constant)	=	8.314	kPa/mol
1 atmosphere (atm)	=	101,325	Pascal (Pa)
1 gram	=	0.0022	lbs

Prover VOC Calculations												
Number of Test per Year	**True Vapor Pressure**		**Volume of Test**		**MW of Vapor**	**R Constant**	**Ambient Temperature**		**VOC Emission/test**		**VOC Emissions**	
	(psi)	**(kg/m2)**	**(gallons)**	**(m^3)**	**(g/mole)**	**(kPa/mol)**	**(°F)**	**(K)**	**(gram)**	**(lbs)**	**(lb/yr)**	**(typ)**
12	5.7584	4,049	1176	4.46	63.4167	8.314	53.3	285	483	1.06	12.75	**0.0064**
The VOC emission per test = (P*V*MW)/(R*T), assuming the vapor in the pipelines in saturated with gasoline vapor at the ambient temperature.												

Prover: Gasoline Vapor HAPs Speciation Data (Weight %)			
HAPs	Weight % (1)	Emissions	
		(lb/yr)	(tpy)
Benzene	0.90%	0.1148	0.00006
Ethyl Benzene	0.10%	0.0128	0.00001
n-Hexane	1.60%	0.2040	0.00010
Toluene	1.30%	0.1658	0.00008
Xylenes	0.50%	0.0638	0.00003
2,2,4-Trimethylp	0.80%	0.1020	0.00005
POM as 16-PAH (Naphthalene)	0.05%	0.0064	0.00000
Totals		**0.669**	**0.00**
(1) Weight percentage for gasoline vapor are from Gasoline Marketing (Stage I and Stage II) Volume III, Chapter 11, revised final, Area Source Committee, Emission Inventory Improvement			

Additive Tank VOC PTE						
Tank ID	**Tank Type**	**Throughput (gal/yr)**	**Working Loss (lb/yr)**	**Total Breathing Loss (lb/yr)**	**Total VOC PTE (lb/yr) [(1)]**	**Product Additive Name**
Tank 1	Vertical Tank	108,678	9.67	17.10	26.77	AP-297-15
Tank 2	Horizontal Tank	69,324	6.17	10.02	16.19	Nemo-1127
Tank 3	Horizontal Tank	66,900	5.95	10.25	16.20	MCC-AST-1402
Tank 4	Horizontal Tank	46,056	4.10	6.89	10.99	AP-205-20
Tank 5	Horizontal Tank	29,232	2.60	4.54	7.14	HiTec-65016
Tank 6	Horizontal Tank	30,132	2.68	4.21	6.89	HiTec-65016
Tank 9	Horizontal Tank	59,136	5.26	9.08	14.34	AP-205-20
Tank 10	Horizontal Tank	33,000	2.94	5.48	8.42	Chevron OGA 72040
Tank 11	Horizontal Tank	58,524	5.21	8.77	13.98	AP-205-20
Tank 12	Horizontal Tank	43,848	3.90	6.89	10.79	Chevron OGA 72040
Totals VOC					**131.71**	**lb/yr**
					0.07	**tons/yr**
(1) Chevron OGA 72040 SDS product information was used for all additives tank emissions because it emits the most VOC						
Brand-specific proprietary customer blended additives delivered by truck and railcar						

Additive Tank HAP PTE							
Tank ID	**Tank Type**	**Throughput (gal/yr)**	**Total VOC (lb/yr)**	**% of HAP**	**Total HAP PTE (lb/yr)**	**Total HAP PTE (tpy)**	**Product Additive**
Tank 1	Vertical Tank	108,678	26.77	21.00	5.62	0.0028	AP-297-15
Tank 2	Horizontal Tank	69,324	16.19	21.00	3.40	0.0017	Nemo-1127
Tank 3	Horizontal Tank	66,900	16.20	21.00	3.40	0.0017	MCC-AST-1402
Tank 4	Horizontal Tank	46,056	10.99	21.00	2.31	0.0012	AP-205-20
Tank 5	Horizontal Tank	29,232	7.14	21.00	1.50	0.0007	HiTec-65016
Tank 6	Horizontal Tank	30,132	6.89	21.00	1.45	0.0007	HiTec-65016
Tank 9	Horizontal Tank	59,136	14.34	21.00	3.01	0.0015	AP-205-20
Tank 10	Horizontal Tank	33,000	8.42	21.00	1.77	0.0009	Chevron OGA 72040
Tank 11	Horizontal Tank	58,524	13.98	21.00	2.94	0.0015	AP-205-20
Tank 12	Horizontal Tank	43,848	10.79	21.00	2.27	0.0011	Chevron OGA 72040
Total HAPs					**27.66**	**0.0138**	
Per information from SFPP 2012 renewal application submittal the Chevron OGA 72015 has AP-NA4M Additive and the SDS Sheet is now included in the 2019 Renewal application submittal: Benzene, Dimethyl (Xylene: 1330-20-7) = 17% and Ethyl Benzene (100-41-4) =							

Greenhouse Gas Calculations

This sheet calculates greenhouse gas emissions from fuel combustion.

1) Enter the combustion emission sources at the facility (e.g. "boiler 1") in the 1st column.

2) In the 2nd column, select the fuel type used in each emissions unit. If more than one fuel type was used in a single emissions unit, you must enter that same emissions unit on multiple rows and then enter the different fuel types in each row.

3) Enter the fuel quantities in the 3rd column and specify the unit of measure in the 4th column. Emissions are then calculated in metric tons of carbon dioxide equivalent ($mtCO_2e$).

Enter emissions information				Convert to mmBtu				Emissions (kg/mmBtu)			CO_2 Equivalent			Anthropogenic ($mtCO_2e$)			Biogenic ($mtCO_2e$)
Emissions unit[1]	Fuel Type[2]	Quantity[3]	Fuel units[3]	HHV Units	HHV Unit	HHV	mmBtu	CH_4	CO_2	N_2O	CH_4	CO_2	N_2O	CH_4	CO_2	N_2O	
Enclosed Flare	Motor gasoline	6,817	Hundred cubic ft	5,099,543	gallon	0.125	637,443	0.003	70.22	0.0006	25	1	298	48	44,761	114	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0

Anthropogenic combustion emissions ($mtCO_2e$):	44,923
Biogenic combustion emissions ($mtCO_2e$):	0
Total combustion emissions ($mtCO_2e$):	**44,923**

Conversion to short tons

Anthropogenic combustion emissions:	49,519
Biogenic combustion emissions:	0
Total combustion emissions:	**49,519**

Note that EPA's revised HHV for wood (changed from 15.38 to 17.48 mmBtu/short ton) is for a dry basis. Use the following formula to calculate a wet basis HHV:

(100-M)*17.48 mmBtu/short ton
M = moisture content (percent)

Use this new HHV to replace the default HHV in the calculator above once the "wood/woodwaste" fuel type is selected.

Tank	Type of Tank	Installation(f), Commenced Construction (C) or Modification (M) Date	Product Type	Estimated Capacity (Gal)	in cubic meters and liters	psia, kPa, mm Hg (taken from Tanks info on application worst-case maximum psia)	40 CFR 63 Subpart BBBBBB	40 CFR 60 subpart K	40 CFR 60 Subpart Kb	40 CFR 60 subpart WW
EG-01	FIXTANK	1962	Biodiesel 5%	412,845	1,562,788 liter & 1,563 m^3	0.0112 psia, 0.0772 kPa, 0.5792 mm Hg	No			No
EG-02	FIXTANK	1962	Biodiesel 5%	824,962	3,122,820 liter & 3,123 m^3		No			No
EG-03	FIXTANK	1962	Biodiesel 5%	572,890	2,168,624 liter & 2,168 m^3		No			No
EG-04	FIXTANK	1962	Biodiesel 5%	206,828	782,929 liter & 783 m^3		No			No
EG-05	FIXTANK	1962	Biodiesel 5%	412,845	1,562,788 liter & 1,563 m^3		No			No
EG-08	FIXTANK	1962	Biodiesel 5%	210,000	794,936 liter & 795 m^3		No			No
EG-09	FIXTANK	1962	Biodiesel 5%	210,000	794,936 liter & 795 m^3		No			No
EG-10	FIXTANK	1963	Biodiesel 5%	412,845	1,562,788 liter & 1,563 m^3		No			No
EG-11	FIXTANK	1962	Biodiesel 5%	412,845	1,562,788 liter & 1,563 m^3		No			No
EG-12	FIXTANK	1962	Biodiesel 5%	215,936	817,406 liter & 817 m^3		No			No
EG-13	FIXTANK	1962	Biodiesel 5%	1,856,164	7,026,346 liter & 7026 m^3		No			No
EG-14	INTANK	1962	Transmix	226,800	858,531 liter & 859 m^3	7.1645 psia, 49.40 kPa, 370.51 mm Hg	Yes			Yes
EG-15	INTANK	1962	Transmix	126,000	476,962 liter & 477 m^3		Yes			Yes
EG-16	INTANK	1973 (M 2007/2008)	Ethanol	1,050,000	3,974,682 liter & 3,975 m^3		Yes		Yes	Yes
EG-17	INTANK	1973	Gasoline	1,050,000	3,974,682 liter & 3,975 m^3		Yes	Yes		Yes
EG-18	INTANK	1973	Gasoline	1,050,000	3,974,682 liter & 3,975 m^3		Yes	Yes		Yes
EG-19	INTANK	1973	Gasoline	1,764,000	6,677,466 liter & 6677 m^3		Yes	Yes		Yes
EG-20	INTANK	1964	Gasoline	525,000	1,9871,341 liter & 1,987 m^3		Yes			Yes
EG-22	EXTANK	1962	Gasoline	840,000	3,179,746 liter & 3,179 m^3	7.2368 psia, 49.90 kPa, 374.25 mm Hg	Yes			Yes
EG-23	EXTANK	1962	Gasoline	252,000	953,924 liter & 954 m^3		Yes			Yes
EG-24	EXTANK	1962	Gasoline	588,000	2,225,822 liter & 2,226 m^3		Yes			Yes
EG-25	EXTANK	1962 (M 2007/2008)	Ethanol	210,000	794,936 liter & 795 m^3		Yes		Yes	Yes
EG-26	EXTANK	1962	Gasoline	252,000	953,924 liter & 954 m^3		Yes			Yes
EG-29	EXTANK	1962	Gasoline	210,000	794,936 liter & 795 m^3		Yes			Yes
EG-30	EXTANK	1962	Gasoline	210,000	794,936 liter & 795 m^3		Yes			Yes
EG-31	EXTANK	1962	Gasoline	294,000	1,112,911 liter & 1,113 m^3		Yes			Yes
EG-32	EXTANK	1962	Gasoline	420,000	1,589,873 liter & 1,590 m^3		Yes			Yes
EG-35	FIXTANK	1962	Biodiesel 5%	412,845	1,562,788 liter & 1,563 m^3	0.0112 psia, 0.0772 kPa, 0.5792 mm Hg	Yes when storing gasoline			Yes when storing gasoline
EG-36	INTANK	1970	Gasoline	1,134,000	4,292,657 liter & 4,293 m^3	7.1645 psia, 49.40 kPa, 370.51 mm Hg	Yes			Yes
EG-37	INTANK	1970	Gasoline	1,470,000	5,564,555 liter & 5,565 m^3		Yes			Yes
EG-38	INTANK	1971	Gasoline	704,970	2,668,602 liter & 2,669 m^3		Yes			Yes
EG-39	INTANK	1971	Gasoline	1,050,000	3,974,682 liter & 3,975 m^3		Yes			Yes
EG-40	INTANK	1984	Gasoline	2,520,000	9,539,238 liter & 9,539 m^3		Yes		Yes	Yes
EG-41	INTANK	1984	Biodiesel	2,520,000	9,539,238 liter & 9,539 m^3	0.0091 psia, 0.0627 kPa, 0.4706 mm Hg	Yes when storing gasoline		Yes	Yes when storing gasoline
EG-42	INTANK	1984	Gasoline	2,520,000	9,539,238 liter & 9,539 m^3	7.1645 psia, 49.40 kPa, 370.51 mm Hg	Yes		Yes	Yes

Tank	Type of Tank	Installation, Commenced Construction (C) or Modification (M) Date	Product Type	Estimated Capacity (Gal)	Tanks Control Equipment		
EG-01	FIXTANK	1962	Biodiesel 5%	412,845	Pressure/ Vacuum Vents		
EG-02	FIXTANK	1962	Biodiesel 5%	824,962	Pressure/ Vacuum Vents		
EG-03	FIXTANK	1962	Biodiesel 5%	572,890	Pressure/ Vacuum Vents		
EG-04	FIXTANK	1962	Biodiesel 5%	206,828	Pressure/ Vacuum Vents		
EG-05	FIXTANK	1962	Biodiesel 5%	412,845	Pressure/ Vacuum Vents		
EG-08	FIXTANK	1962	Biodiesel 5%	210,000	Pressure/ Vacuum Vents		
EG-09	FIXTANK	1962	Biodiesel 5%	210,000	Pressure/ Vacuum Vents		
EG-10	FIXTANK	1963	Biodiesel 5%	412,845	Pressure/ Vacuum Vents		
EG-11	FIXTANK	1962	Biodiesel 5%	412,845	Pressure/ Vacuum Vents		
EG-12	FIXTANK	1962	Biodiesel 5%	215,936	Pressure/ Vacuum Vents		
EG-13	FIXTANK	1962	Biodiesel 5%	1,856,164	Pressure/ Vacuum Vents		
EG-14	INTANK	1962	Transmix	226,800		Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-15	INTANK	1962	Transmix	126,000		Primary: Vapor-mounted	Secondary: None
EG-16	INTANK	1973 (M 2007/2008)	Ethanol	1,050,000		Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-17	INTANK	1973	Gasoline	1,050,000		Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-18	INTANK	1973	Gasoline	1,050,000		Primary: Vapor-mounted	Secondary: None
EG-19	INTANK	1973	Gasoline	1,764,000		Primary: Vapor-mounted	Secondary: None
EG-20	INTANK	1964	Gasoline	525,000		Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-22	EXTANK	1962	Gasoline	840,000	Construction: Welded	Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-23	EXTANK	1962	Gasoline	252,000	Construction: Welded	Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-24	EXTANK	1962	Gasoline	588,000	Construction: Welded	Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-25	EXTANK	1962 (M 2007/2008)	Ethanol	210,000	Construction: Welded	Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-26	EXTANK	1962	Gasoline	252,000	Construction: Welded	Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-29	EXTANK	1962	Gasoline	210,000	Construction: Welded	Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-30	EXTANK	1962	Gasoline	210,000	Construction: Welded	Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-31	EXTANK	1962	Gasoline	294,000	Construction: Welded	Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-32	EXTANK	1962	Gasoline	420,000	Construction: Welded	Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-35	FIXTANK	1962	Biodiesel 5%	412,845	Pressure/ Vacuum Vents		
EG-36	INTANK	1970	Gasoline	1,134,000		Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-37	INTANK	1970	Gasoline	1,470,000		Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-38	INTANK	1971	Gasoline	704,970		Primary: Liquid-mounted	Secondary: None
EG-39	INTANK	1971	Gasoline	1,050,000		Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-40	INTANK	1984	Gasoline	2,520,000		Primary: Mechanical Shoe	Secondary: Rim-mounted
EG-41	INTANK	1984	Biodiesel	2,520,000		Primary: Mechanical Shoe	Secondary: None
EG-42	INTANK	1984	Gasoline	2,520,000		Primary: Mechanical Shoe	Secondary: Rim-mounted