

Tesoro Savage Vancouver Energy Distribution Terminal

PART 2 PROPOSAL

Section 2.1 – Site Description

WAC 463-60-135
Proposal – Site description.

The application shall contain a description of the proposed site indicating its location, prominent geographic features, typical geological and climatological characteristics, and other information necessary to provide a general understanding of all sites involved, including county or regional land use plans and zoning ordinances.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, recodified as § 463-60-125, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-125, filed 10/8/81. Formerly WAC 463-42-180.)

Section 2.1 Site Description

2.1.1 Location of Tesoro Savage Vancouver Energy Distribution Terminal

The proposed Tesoro Savage Vancouver Energy Distribution Terminal (Facility) will be constructed at the Port of Vancouver (Port) within the City of Vancouver (City) in Clark County, Washington. The Facility includes construction and operations in different “Areas” on the overall facility, each area serving different functions. The site is located on the north (Washington) shore of the Columbia River. State Route (SR) 501 (Lower River Road) is located immediately to the north of the site. Interstate 5 (I-5) is located approximately 2.5 miles east. Rail access to the site is available from the east. Figure 2.1-1 presents a general vicinity map of the location; Figure 2.1-2 provides an aerial view and identifies existing adjacent uses. Each Facility area is described in further detail below. The entire Facility will be constructed on approximately 44.9 acres.

The Port is located from approximately 103 to 106 river miles (RM) from the Pacific Ocean on the Columbia River at the head of the deep-water navigation channel. The total land area of the Port is approximately 2,127 acres, including approximately 800 developed acres and 500 acres planned for future development. Marine operations include five terminals and 13 berths. The Port handles 400 to 500 vessel calls per year and approximately 5 million metric tons of cargo yearly, including grain, scrap steel, bulk minerals, pulp, automobiles, refined petroleum products, and other bulk liquids. More than 2,300 people are directly employed by businesses at the Port (Port of Vancouver 2013).

Most of the site will be leased from the Port and will be used exclusively by the Applicant for the construction and operation of the Facility. The Transfer Pipelines will be located on non-exclusive easements within the Port.

The site is located in the SE ¼ of Section 18, NW ¼ of Section 19, and the NW and NE ¼ of Section 20, Township 2 North, Range 1 East WM. Berths 13 and 14 are located at approximately Columbia RM 103.5. Table 2.1-1 summarizes the project site areas discussed in detail below.

Table 2.1-1. Project Development Summary

Project Element	Site Location	Area (acres)
Area 200 – Unloading and Office	5501 NW Lower River Road NE ¼ Section 19, & S ½ Section 18, T2N, R1E WM Parcels: 152799-000, 152903-000	7.59
Area 300 – Storage	No site address N ½ Section 20, T2N, R1E WM Parcel: 152173-000	20.84
Area 400 – Marine Terminal	No site address NW ¼ Section 20, T2N, R1E WM Parcels: 152166-000, 503030-000, 503030-003	7.63
Area 500 – Transfer Pipelines	No address NE ¼ Section 19 & NW ¼ Section 20, T2N, R1E WM Parcels: 152184-000, 152177-000, 152179-000, 986027-146, 986027-027, 50303-001, 152166-000,	2.62

Project Element	Site Location	Area (acres)
Area 600 – West Boiler	No site address SW ¼ Section 19, T2N R1E WM Parcel:152799-000	0.79
Rail Infrastructure	5501 NW Lower River Road N ½ Section 19, & S ½ Section 18, T2N, R1E WM Parcels: 152799-000, 152903-000, 152905-000, 152798-000	5.45

2.1.1.1 Area 200 – Administrative/Support and Rail Unloading

Area 200 is located at 5501 NW Lower River Road in Vancouver. The following Facility elements will be located in Area 200: administrative and support buildings, parking, rail access to the rail unloading facility, and the rail unloading facility. Area 200 will be accessible from an unnamed private road owned and maintained by the Port. Area 200 facilities will be constructed on approximately 7.59 acres.

Area 200 is in the northern portion of the area of the Port that is generally defined as Terminal 5. Terminal 5 is the former location of aluminum processing facilities owned and operated by Evergreen Aluminum LLC (Evergreen) and the Aluminum Company of America (Alcoa). The site has been the location of intensive historic industrial use, dating back to the 1940s when Alcoa first developed the site for aluminum smelting operations, through the early 2000s, when aluminum processing activities on the property ended. The Port completed the purchase of the Evergreen and Alcoa properties in 2009 and, with the exception of the onsite water tower and the dock structure in the Columbia River, all structures of the former aluminum processing plants have been removed and remediation has been conducted at the site in accordance with Washington State Department of Ecology (Ecology) approvals.

The Terminal 5 site is currently developed and used for the outdoor storage of wind turbine components and other cargoes and contains multiple rail lines for Port operations. The rail on the site represents the westernmost segment of the West Vancouver Freight Access (WVFA) project, a rail improvement project that is under construction at the Port. See Figure 2.1-2 for existing conditions at Terminal 5.

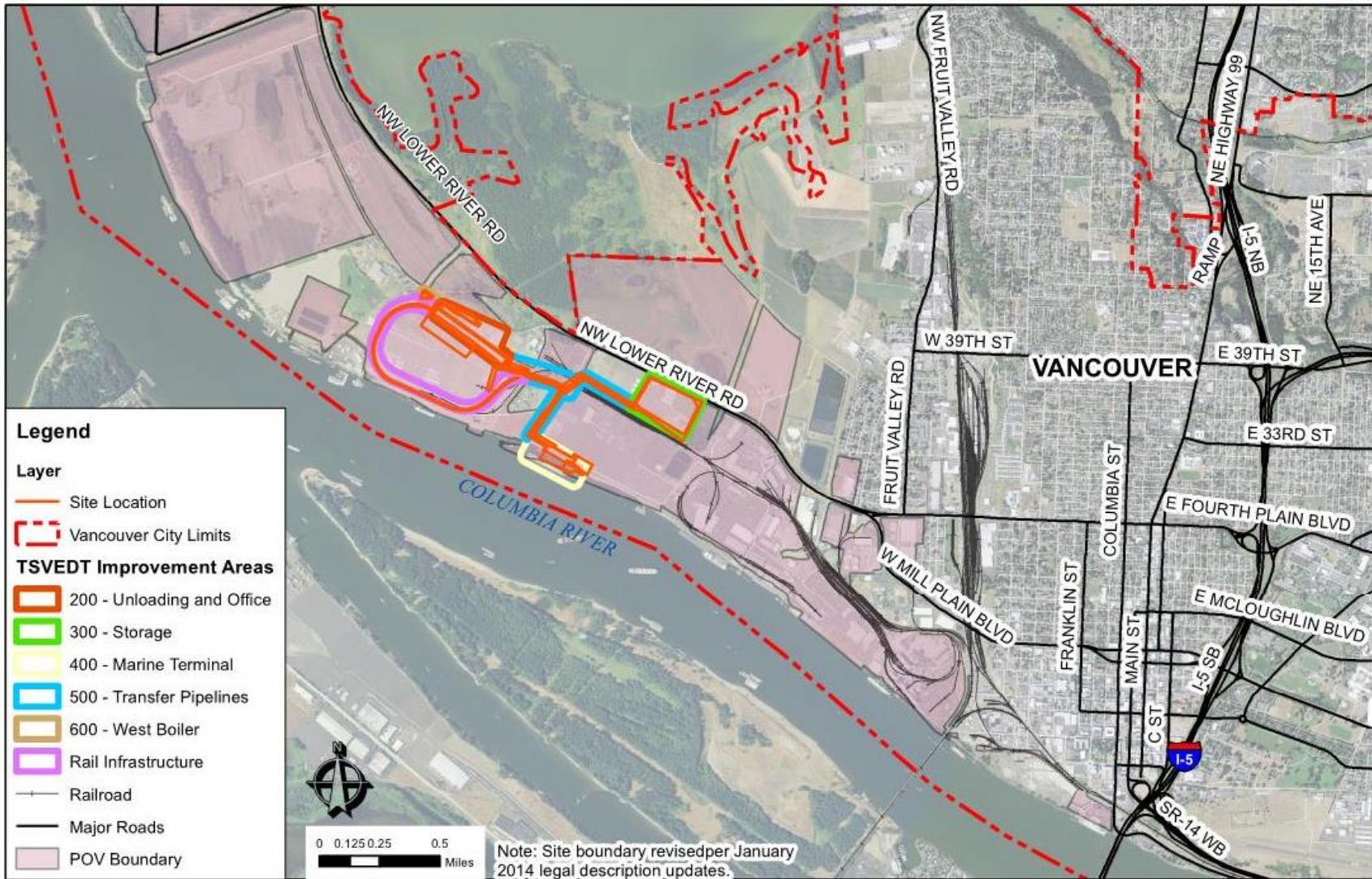


Figure 2.1-1. General Vicinity Map

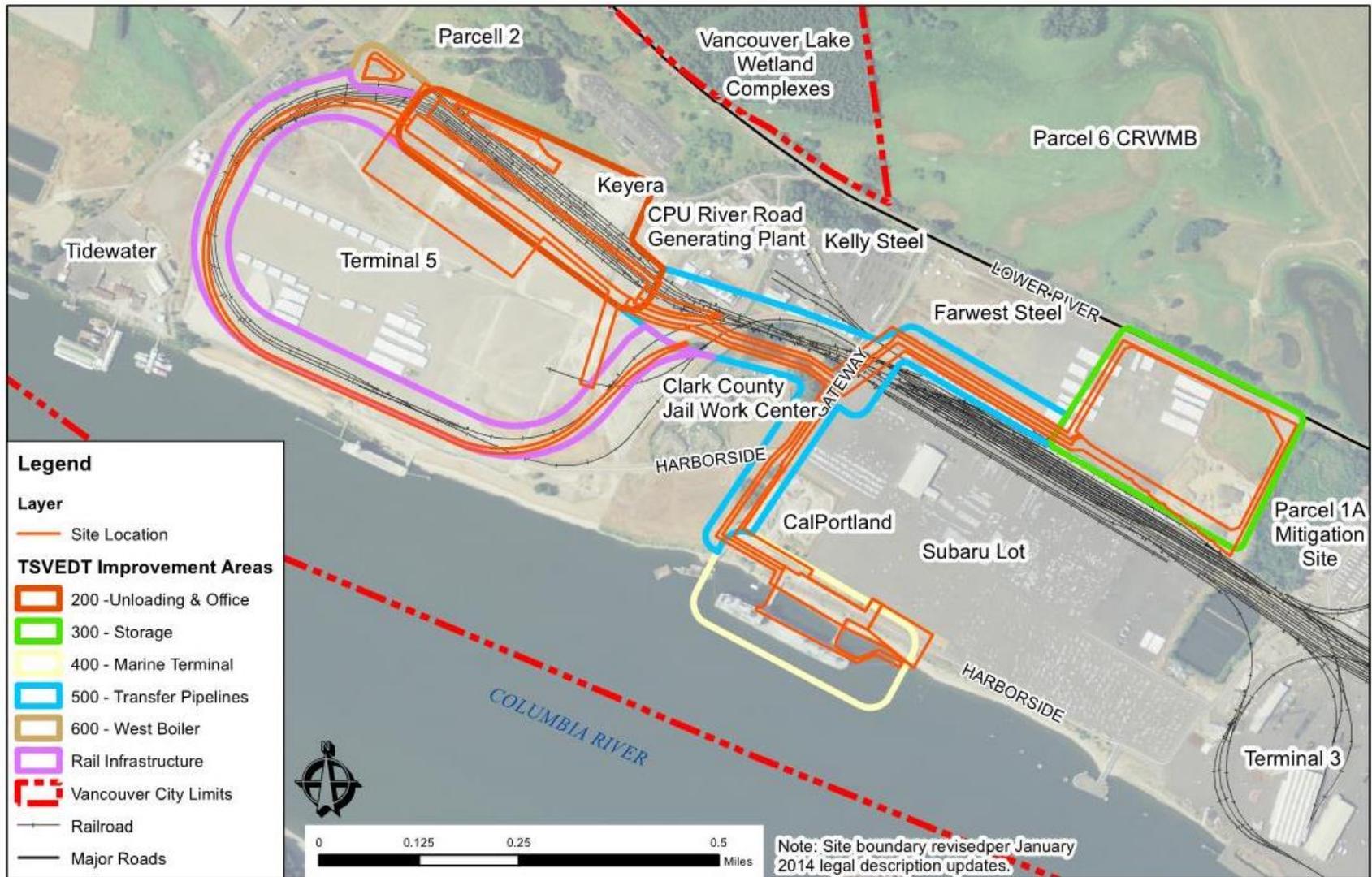


Figure 2.1-2. Aerial View

2.1.1.2 Area 300 – Storage

Area 300 is located at the Port's Parcel 1A on the south side of NW Lower River Road just east of the existing Farwest Steel facility. The following Facility elements will be located in Area 300: product storage tanks and associated secondary containment, the Area 300 Boiler Building, and associated control and ancillary systems. Area 300 will be accessible from NW Gateway Avenue and NW Lower River Road via a shared private drive. Area 300 elements will be constructed on approximately 20.84 acres.

This site was developed by the Port for laydown and industrial development and is currently partially occupied by a temporary steel scrap storage yard. See Figure 2.1-2 for existing conditions at Parcel 1A.

2.1.1.3 Area 400 – Marine Terminal

Area 400 is located at existing Port berths 13 and 14 on the Columbia River south of the current Subaru facility. The following Facility elements will be located in Area 400: product conveyance and loading facilities located on the dock, the MVCUs, emergency containment and response equipment, and control and ancillary facilities associated with vessel loading. This area will be accessed from Gateway Avenue and Harborside Drive by a driveway to be constructed with the project. Area 400 will be constructed on approximately 7.63 acres.

Berths 13 and 14 were developed by the port in the early 1990s for a short- and/or long-term moorage of ocean-going governmental and commercial vessels. The dock consists of two access trestles and T docks with associated mooring elements. The access trestles and T docks consist of steel pile-supported concrete decks with a steel pile fenders system. Four steel pile-supported concrete breasting dolphins are connected to the T docks by steel-grated walkways. Three steel pile-supported concrete mooring dolphins are located between the shoreline and the T docks. The navigation channel of the Columbia River in this area is maintained artificially at a depth of -43 feet and the Port maintains the berths to the same depth. The nearshore habitat drops off rapidly and, as a result, there is little shallow water habitat or transition zone. Columbia River water volumes are managed by upstream dams, and there is no functioning floodplain within the project site. Sediments in the area of the project are predominantly silts, sands, and clays, with very little gravel or cobble present. There is no in-stream large woody debris or any backwater or side channel habitat at the project site. See Figure 2.1-2 for existing conditions at berths 13 and 14.

2.1.1.4 Area 500 – Transfer Pipelines

Area 500 consists of a non-exclusive easement located within Terminal 5, Parcel 1A, Terminal 4, and corridors adjacent to existing private port roads. Area 500 includes the corridors for the approximately 38,500 lineal feet of transfer pipelines that will connect the Unloading (Area 200), Storage (Area 300), and Marine Terminal (Area 400) portions of the project. See Figure 2.1-2 for existing conditions along the transfer pipeline corridor. Area 500 will be constructed on approximately 2.62 acres.

2.1.1.5 Area 600 – West Boiler

Area 600 is located at the northwest corner of Terminal 5. The Area 600 Boiler Building and its associated parking will be constructed at this location. Area 600 will be accessed from Old Lower River Road and a private road owned and maintained by the Port. See Figure 2.1-2 for

existing conditions at Area 600. Area 600 facilities will be constructed on approximately 0.79 acre.

2.1.1.6 Rail Infrastructure

The project will require the construction of two additional rail loops (tracks 4106 and 4107) consisting of approximately 18,000 lineal feet of new rail located on approximately 5.45 acres at Terminal 5. Existing Terminal 5 rail associated with the WVFA will be shifted; the shifting of existing facilities will be performed by others, has been previously permitted, and is not included within this request for Site Certification. A third rail loop (track 4105) is permitted for general Port use. This track may be transferred to exclusive use by the Facility once a sustained volume of 120,000 barrels per day is received by the Facility.

2.1.2 Prominent Geographic Features

2.1.2.1 Terminal 5

Terminal 5 is the location of the Unloading and Office elements (Area 200) and the rail infrastructure. This area is bounded on the south by the Columbia River. With the exception of the riprapped shoreline, the site is flat and is composed of developed rail facilities, gravel surfacing, and paving.

2.1.2.2 Parcel 1A

Parcel 1A is the location of Storage (Area 300). There are no prominent geographic features on Parcel 1A. The site is flat and consists of gravel or dirt with scattered grasses and weeds and a temporary scrap steel yard.

2.1.2.3 Terminal 4 Berths 13 and 14

Berths 13 and 14 are the location of the Marine Terminal (Area 400) and include the Columbia River and shoreline. At this location, the river has a bank to bank width of approximately 5,600 feet, with a maintained channel width of 600 to 800 feet and a maintained depth of -43 feet Columbia River Datum (CRD). The bank consists of steeply sloping riprap with parking and storage at the top of the bank. The existing pile-supported dock consists of two access trestles, four breasting dolphins connected to the trestles by catwalks, and three mooring dolphins.

2.1.2.4 General Area

Within the general vicinity of the Facility location, there are several other geographic features. Vancouver Lake is an approximately 2,287 acre shallow lake located in the Columbia River floodplain is located northeast of the project site (Clark County 2010). There is an associated wetland complex located south of Vancouver Lake. The Columbia River Wetland Mitigation Bank (CRWMB), an approximately 154-acre wetland mitigation bank established in 2010, is located at the southern extent of this wetland complex.

There are also two wetland mitigation sites in the vicinity of the project site. The Parcel 1A wetland mitigation site, located immediately east of Parcel 1A, was created in 1994. The Parcel 2 wetland mitigation site is an approximately 16.4-acre mitigation site, situated on an approximately 31.3-acre parcel north of the existing Terminal 5 site.

2.1.3 Typical Geological and Climatological Characteristics

The information below summarizes the more detailed information regarding geology and climate that is included as sections 3.1 Earth and 3.2 Air.

2.1.3.1 Geology

The Facility is located in the Vancouver Lake Lowlands. The natural geological features of the site have been modified over time through the development of Port facilities to today's existing conditions. Artificial fill material was used to modify historical topographic relief and typically consists of sand and silt. Much of this material was derived from suction dredging techniques where Columbia River channel sand was piped on shore for dewatering and grading. This fill material mantles the project site and is common in the historically industrial developed areas in the vicinity.

The Facility is situated in the Portland Basin, a northwest-elongated structural basin bordered to the east by the Cascade Mountain foothills, to the west by the Portland West Hills, to the south by the Clackamas River, and to the north by the Lewis River (Evarts et al., 2009). The Portland Basin began to form about 20 million years ago with folding and uplift of Tertiary basement marine and volcanic rocks, and was subsequently filled with volcanic and sedimentary rocks. Approximately 15 to 16 million years ago, flood-basalt flows of the entered the basin through a broad Columbia River valley transecting the Cascade Range and emptying into the Pacific Ocean (Beeson et al. 1989). By 14 million years ago, the uplift of the Portland Hills diverted the Columbia River northward (Evarts et al. 2009).

The Columbia River deposited up to 600 feet of fine-grained river and lake sediments into the subsiding Portland Basin (Trimble 1963). The deposits are poorly cemented siltstone, sandstone, and claystone. Overlaying this deposit is 600 feet of consolidated and cemented sandstone and conglomerate of the Troutdale Formation (Tolan and Beeson 1984). The Troutdale Formation resulted from a high-energy braided river system (Evarts et al. 2009) that was eroded during the last ice age by the ancestral Columbia and Willamette rivers and by catastrophic glacial outburst floods (Allen et al. 2009). Glacial outburst floodwaters from Montana washed across eastern Washington and through the Columbia River Gorge to spread out in the Portland Basin and pool to elevations of about 400 feet, depositing boulders, cobbles, and gravel sediment grading to thick blankets of micaceous sand. The sea level rose by about 300 feet after the last of the glacial outburst floods about 15,000 years ago, forming an estuarine environment that extends far upstream in the Columbia River. This low energy environment rapidly filled with more recent sandy alluvium and broad floodplains developed along the primary Columbia River channel, including the Vancouver Lake Lowlands (Peterson et al. 2011).

2.1.3.2 Climate

The climate of the City is predominately temperate, characterized by wet, mild winters and dry, warm summers. The climate is influenced by the relative proximity of the Pacific Ocean and the Cascade and Coast ranges of Oregon and Washington. Temperature and precipitation measurement records from the "Vancouver 4 NNE" agricultural meteorological station were accessed to analyze the climate at the project site. This station is located about 4 miles northeast of the project site and has been collecting measurements since 1856. The monthly climate summary is included in Table 3.2-5. The maximum temperature ever recorded at the site was 106° F on July 30, 2009 and minimum temperature recorded was -8.0° F in 1909. The site averages about 40 inches of rainfall and 6.5 inches of snow a year, with most of the precipitation

occurring during the winter months. Prevailing winds are from the west-northwest. See Section 3.2 for additional climate information.

2.1.4 Land Use Plans and Zoning Ordinances

A full description of the applicable comprehensive plans, zoning and development ordinances, and other land use programs applicable to the Facility is included in Section 4.2 Land and Shoreline Use.

The project is located completely within the corporate limits of the City. The land is designated as Industrial (IND) in the City of Vancouver Comprehensive Plan and is zoned as Heavy Industrial (IH). The IH zoning of the site allows a variety of industrial uses, including the proposed Facility, which is classified as a “warehouse/freight movement” as defined in Section 20.160.020 of the VMC. The VMC also permits “railroad yards” within the IH zone.

The ship loading elements located in Area 400 and Rail Infrastructure on Terminal 5 include features located within 200 feet of the Columbia River, a shoreline of statewide significance. Lands within 200 feet of the ordinary high water mark (OHWM) of the Columbia River are subject to regulation under the City of Vancouver Shoreline Master Program (SMP). The SMP designates the shoreline environment of the upland areas on the site as High Intensity and the areas of the site below the OHWM of the river as Aquatic. Within the High Intensity and Aquatic designations, water-dependent industrial uses are permitted activities. The SMP defines a water-dependent use as follows: “a use or a portion of a use which requires direct contact with the water and cannot exist at a non-water location due to the intrinsic nature of its operations.” The purpose of the proposed project is to transfer crude oil from rail cars to ships, consistent with the definition of water dependent use. Furthermore, within the High Intensity designation Railroads are a permitted activity. A shoreline substantial development permit would be required for the proposed activities within the shoreline jurisdiction.

Section 2.2 – Legal Descriptions and Ownership Interests

WAC 463-60-135

Proposal – Legal descriptions and ownership interests.

(1) Principal facility. The application shall contain a legal description of the site to be certified and shall identify the applicants and all nonprivate ownership interests in such land.

(2) Associated and transmission facilities. For those facilities described in RCW 80.50.020 (6) and (7) the application shall contain the legal metes and bounds description of the preferred centerline of the corridor necessary to construct and operate the facility contained therein, the width of the corridor, or variations in width between survey stations if appropriate, and shall identify the applicant's and others' ownership interests in lands over which the preferred centerline is described and of those lands lying equidistant for 1/4 mile either side of such center line.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-135, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1). 83-01-128 (Order 82-6), § 463-42-135, filed 12/22/82. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-135, filed 10/8/81. Formerly WAC 463-42-190.)

Section 2.2 Legal Descriptions and Ownership Interests

The Facility will be constructed on an approximately 44.9-acre site within portions of the SE ¼ of Section 18, NW ¼ of Section 19, and the NW and NE ¼ of Section 20, Township 2 North, Range 1 East WM. Berths 13 and 14 are located at approximately RM 103.5.

2.2.1 Legal Description of Property

The legal description is presented in the following pages.

This legal description is a preliminary description of the lease areas and non-exclusive easements. The lease agreement between the Applicant and the Port contemplates refinements to the precise boundaries of the lease areas based on final facility design. A final legal description will be provided to EFSEC prior to the beginning of Facility construction.

2.2.1 Legal Description of Property

(Revised January 2014¹)

¹ Only Figures 2.1.1 and 2.1.2 of this ASC have been updated to identify the updated Facility site boundary. The Applicant will, however, use this updated Facility site boundary in all figures and analyses presented in the Applicant-prepared DEIS.

LEGAL DESCRIPTION
AREA 600 LEASE PARCEL (West Boiler Building)
PORT OF VANCOUVER

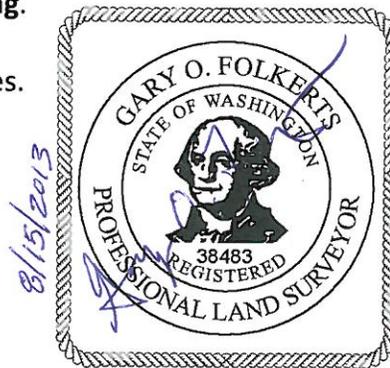
Real property situated in the City of Vancouver, Clark County, Washington, being portions of the John Mathews and William Hendrickson Donation Land Claims and lying in the South half of Section 18, Township 2 North, Range 1 East of the Willamette Meridian described as follows:

(The following description is referenced to the Washington coordinate system of 1983, south zone. Divide the following "grid" distances by a combined scale factor of 1.000042242 to determine "ground" distances.)

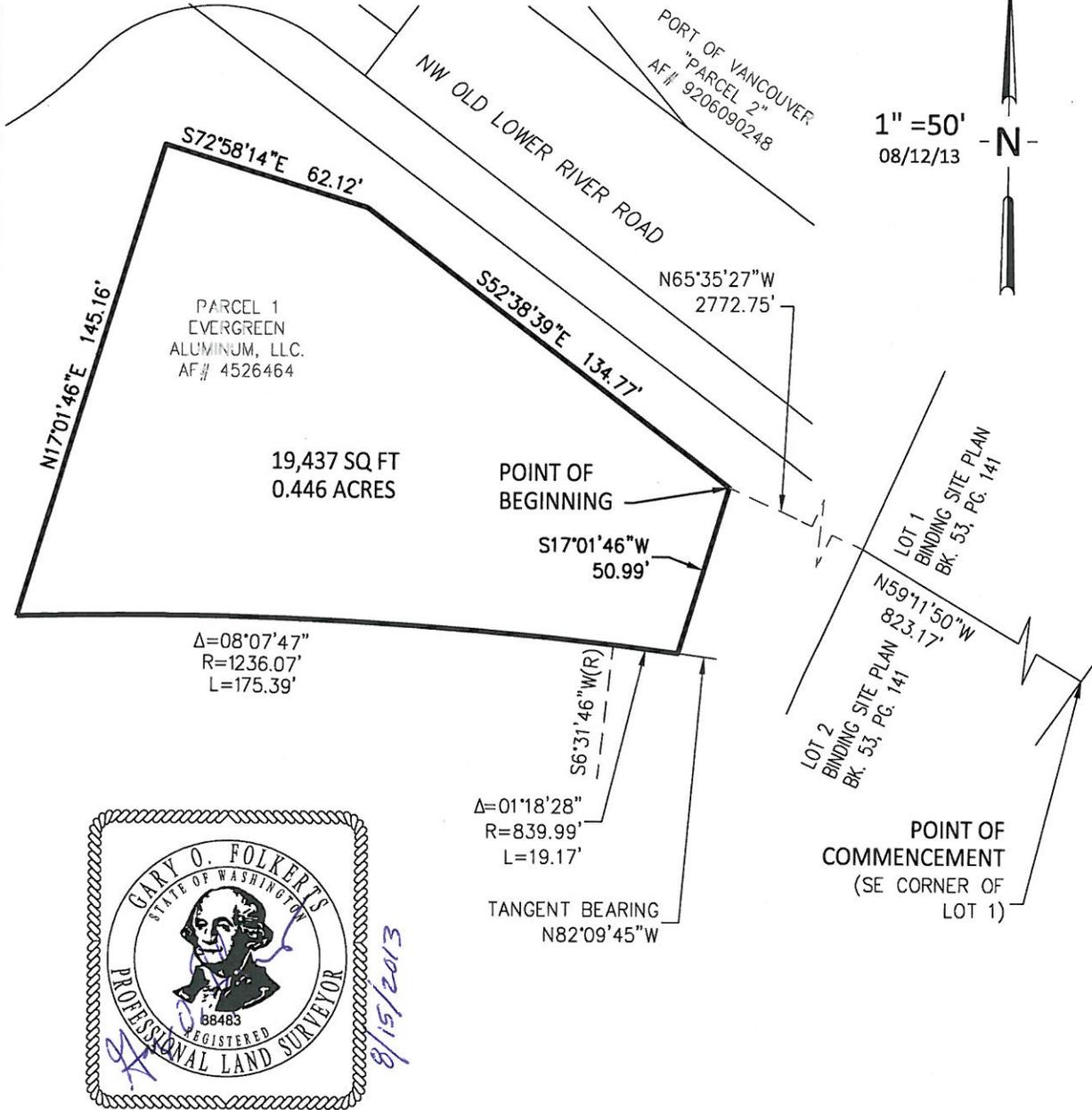
Commencing at the Southeast corner of Lot 1 of that Port of Vancouver Binding Site Plan recorded in Book 53 of Surveys at page 141, said corner also being the Northeast corner of Lot 2 of said Binding Site Plan; thence along the North line of said Lot 2 and the South line of said Lot 1 North 59° 11' 50" West 823.17 feet to the Southwest corner of said Lot 1 and Northwest corner of said Lot 2; thence North 65° 35' 27" West 2,772.75 feet to the **Point of Beginning**; thence South 17° 01' 46" West 50.99 feet a point on an arc of an 839.99 foot radius curve; thence from a tangent bearing of North 82° 09' 45" West, along said curve to the left, through a central angle of 01° 18' 28", an arc distance of 19.17 feet to a point of compound curvature with a 1,236.07 foot radius curve; thence along said curve to the left, through a central angle of 08° 07' 47", an arc distance of 175.39 feet; thence leaving said curve North 17° 01' 46" East 145.16 feet; thence South 72° 58' 14" East 62.12 feet; thence South 52° 38' 39" East 134.77 feet to the **Point of Beginning**.

Containing 19,437 square feet or approximately 0.446 acres.

Subject to easements and restrictions of record.



SKETCH TO ACCOMPANY LEGAL DESCRIPTION
 AREA 600 LEASE PARCEL
 (WEST BOILER BUILDING AREA)
 PORT OF VANCOUVER



1" = 50'
 08/12/13

N



8/15/2013

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LEGAL DESCRIPTION
AREA 200 LEASE PARCELS
(UNLOADING AND OFFICE AREA)
PORT OF VANCOUVER

(UNLOADING AREA)

Real property situated in the City of Vancouver, Clark County, Washington, being portions of the Patrick Markey and John Mathews Donation Land Claims and lying in the Southeast quarter of Section 18 and the Northeast quarter of Section 19, Township 2 North, Range 1 East of the Willamette Meridian described as follows:

A portion of "Parcel 1" as conveyed to Port of Vancouver by Evergreen Aluminum, LLC by deed recorded under Auditor's File No. 4526464 and a portion of "Parcel 1" as conveyed to the Port of Vancouver by Alcoa by deed recorded under Auditor's file No. 4547240, records of said county, described as follows:

(The following description is referenced to the Washington coordinate system of 1983, south zone. Divide the following "grid" distances by a combined scale factor of 1.000042242 to determine "ground" distances.)

Commencing at the Southeast corner of Lot 1 of that Port of Vancouver Binding Site Plan recorded in Book 53 of Surveys at page 141, said corner also being the Northeast corner of Lot 2 of said Binding Site Plan; thence along the North line of said Lot 2 and the South line of said Lot 1 North 59° 11' 50" West 823.17 feet to the Southwest corner of said Lot 1 and Northwest corner of said Lot 2; thence South 74° 49' 47" West 877.26 feet to the **Point of Beginning**; thence South 35° 01' 15" West 153.52 feet to a point on an arc of an 945.37 foot radius curve; thence from a tangent bearing of North 61° 46' 41" West, along said curve to the right, through a central angle of 11° 03' 47", an arc distance of 182.54 feet to a point of tangency; thence North 50° 42' 54" West 421.43 feet to a point of curvature with a 5743.00 foot radius curve; thence along said curve to the left, through a central angle of 03° 48' 43", an arc distance of 382.10 feet to a point of tangency; thence North 54° 31' 45" West 906.24 feet; thence North 35° 28' 15" East 134.00 feet to a point hereinafter referred to as

"Point A"; thence South 54° 31' 45" East 1651.32 feet; thence South 50° 40' 40" East 226.20 feet; thence South 51° 51' 45" East 12.52 feet to the **Point of Beginning**.

Containing 271,636 square feet or approximately 6.236 acres.

Subject to easements and restrictions of record.

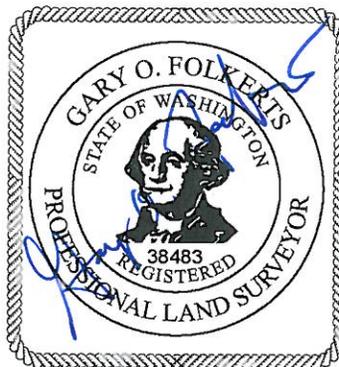
(OFFICE AREA)

Also:

Beginning at said "**Point A**"; thence North 85° 31' 18" East 243.75 feet to the **Point of Beginning**; thence North 24° 07' 06" East 44.62 feet; thence South 65° 55' 02" East 585.81 feet; thence South 24° 00' 02" West 6.37 feet; thence South 37° 55' 26" East 104.74 feet; thence South 48° 25' 32" East 19.93 feet; thence South 58° 52' 37" East 83.29 feet; thence South 31° 52' 06" West 77.32 feet; thence North 59° 12' 26" West 188.75 feet; thence North 58° 12' 15" West 20.68 feet; thence North 57° 12' 51" West 193.11 feet; thence North 62° 29' 14" West 70.04 feet; thence North 63° 20' 37" West 70.51 feet; thence North 60° 16' 21" West 64.16 feet; thence North 57° 12' 05" West 77.20 feet; thence North 50° 50' 30" West 93.40 feet to the **Point of Beginning**.

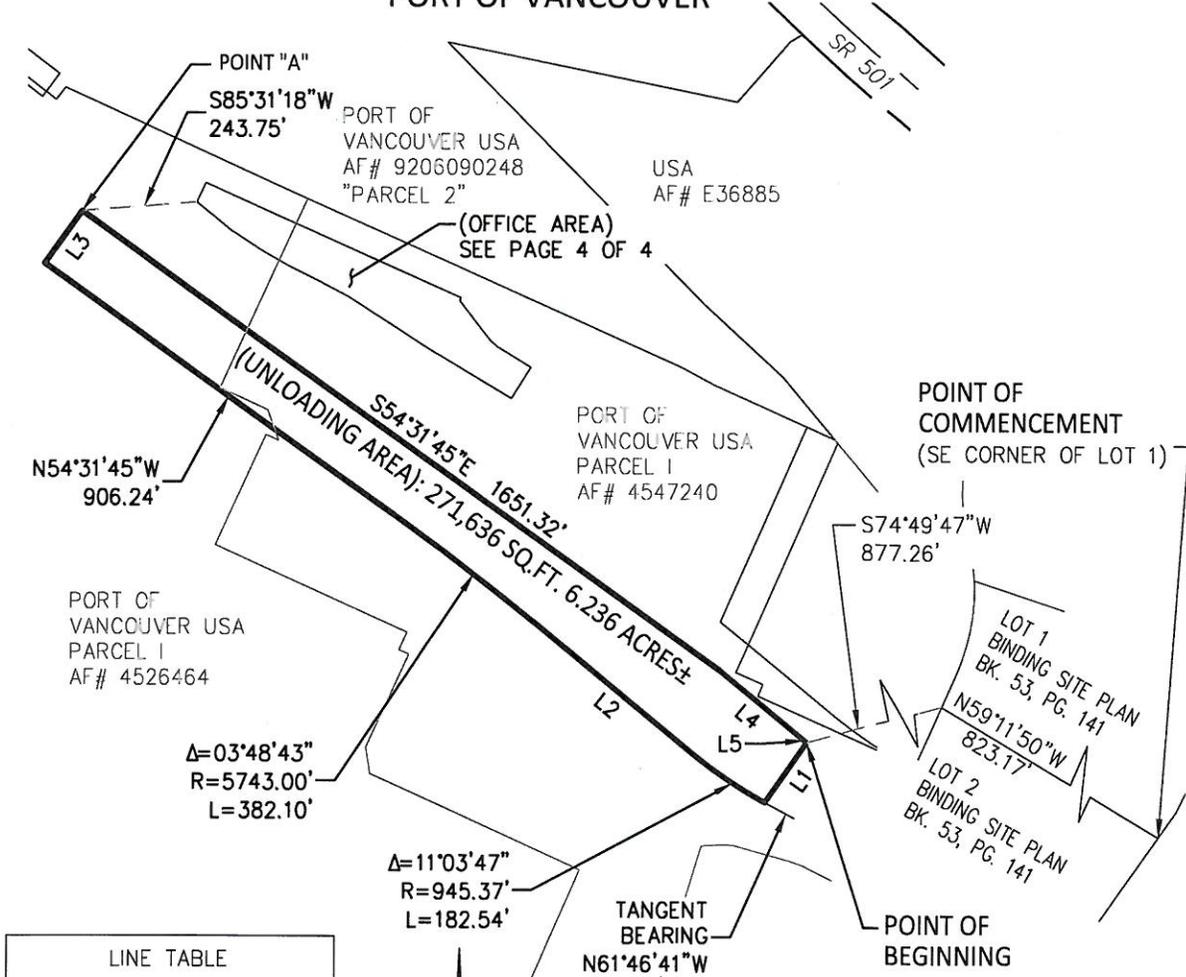
Containing 69,603 square feet or approximately 1.598 acres.

Subject to easements and restrictions of record.

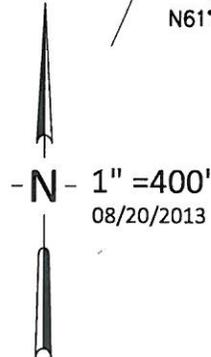


8/21/2013

**SKETCH TO ACCOMPANY LEGAL DESCRIPTION
AREA 200 LEASE PARCELS
(UNLOADING AREA)
PORT OF VANCOUVER**



LINE TABLE		
NO.	BEARING	DISTANCE
L1	S35°01'15"W	153.52'
L2	N50°42'54"W	421.43'
L3	N35°28'15"E	134.00'
L4	S50°40'40"E	226.20'
L5	S51°51'45"E	12.52'

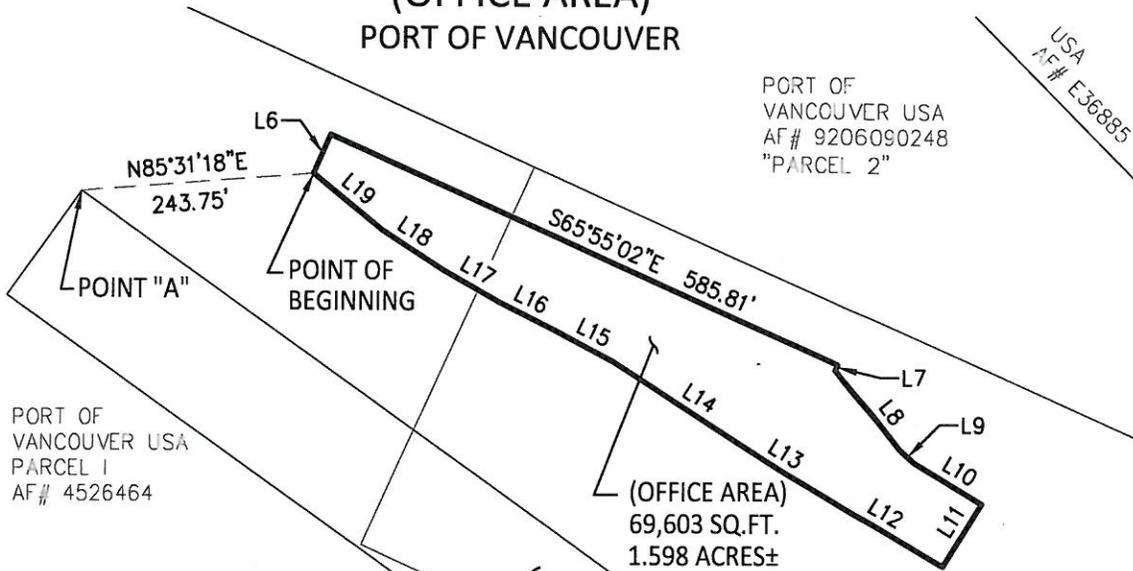


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**SKETCH TO ACCOMPANY LEGAL DESCRIPTION
AREA 200 LEASE PARCELS
(OFFICE AREA)
PORT OF VANCOUVER**



PORT OF VANCOUVER USA
PARCEL 1
AF# 4526464

PORT OF VANCOUVER USA
AF# 9206090248
"PARCEL 2"

USA
AF# E36885

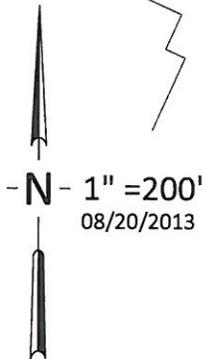
(OFFICE AREA)
69,603 SQ.FT.
1.598 ACRES±

(UNLOADING AREA)
SEE PAGE 3 OF 4

PORT OF VANCOUVER USA
PARCEL 1
AF# 4547240

LINE TABLE		
NO.	BEARING	DISTANCE
L6	N24°07'06"E	44.62'
L7	S24°00'02"W	6.37'
L8	S37°55'26"E	104.74'
L9	S48°25'32"E	19.93'
L10	S58°52'37"E	83.29'
L11	S31°52'06"W	77.32'
L12	N59°12'26"W	188.75'
L13	N58°12'15"W	20.68'
L14	N57°12'51"W	193.11'
L15	N62°29'14"W	70.04'
L16	N63°20'37"W	70.51'
L17	N60°16'21"W	64.16'
L18	N57°12'05"W	77.20'
L19	N50°50'30"W	93.40'

PORT OF VANCOUVER USA
PARCEL 1
AF# 4526464



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VANCOUVER: (360) 695-3411
PORTLAND: (503) 289-6726
FAX (360) 695-0833

LEGAL DESCRIPTION
AREA 300 LEASE PARCEL (TANK FARM)
PORT OF VANCOUVER

Real property situated in the City of Vancouver, Clark County, Washington, being a portion of the Henry Van Alman Donation Land Claim, lying in the North half of Section 20, Township 2 North, Range 1 East of the Willamette Meridian, described as follows:

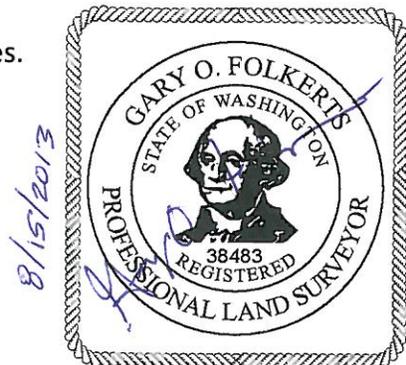
Portions of Lot 3 and Lot 4 of the Port of Vancouver Binding Site Plan recorded in Book 53 of surveys, at Page 141, records of said county, described as follows:

(The following description is referenced to the Washington coordinate system of 1983, south zone. Divide the following "grid" distances by a combined scale factor of 1.000042242 to determine "ground" distances.)

Commencing at the Northwest corner of said Lot 4, said corner being on the South right of way line of Lower River Road (SR 501) as shown on said Binding Site Plan; Thence along the North line of said Lot 4 and said South right of way line South 64° 04' 04" East 572.59 feet to the Northeast corner of said Lot 4, said corner being an angle point on the North line of Tract B of said Binding Site Plan; thence along the East line of said Lot 4 and the North line of said Tract B South 27° 04' 10" West 136.35 feet to the **Point of Beginning**; thence continuing along said East and North line South 27° 04' 10" West 635.67 feet; thence leaving said East and North line South 70° 47' 50" West 57.47 feet; thence North 58° 53' 18" West 1082.42 feet; thence North 46° 35' 26" West 138.06 feet; thence North 30° 59' 21" East 631.05 feet; thence North 73° 27' 39" East 51.57 feet; thence South 64° 04' 04" East 984.81 feet; thence South 29° 39' 03" East 223.50 feet to the **Point of Beginning**.

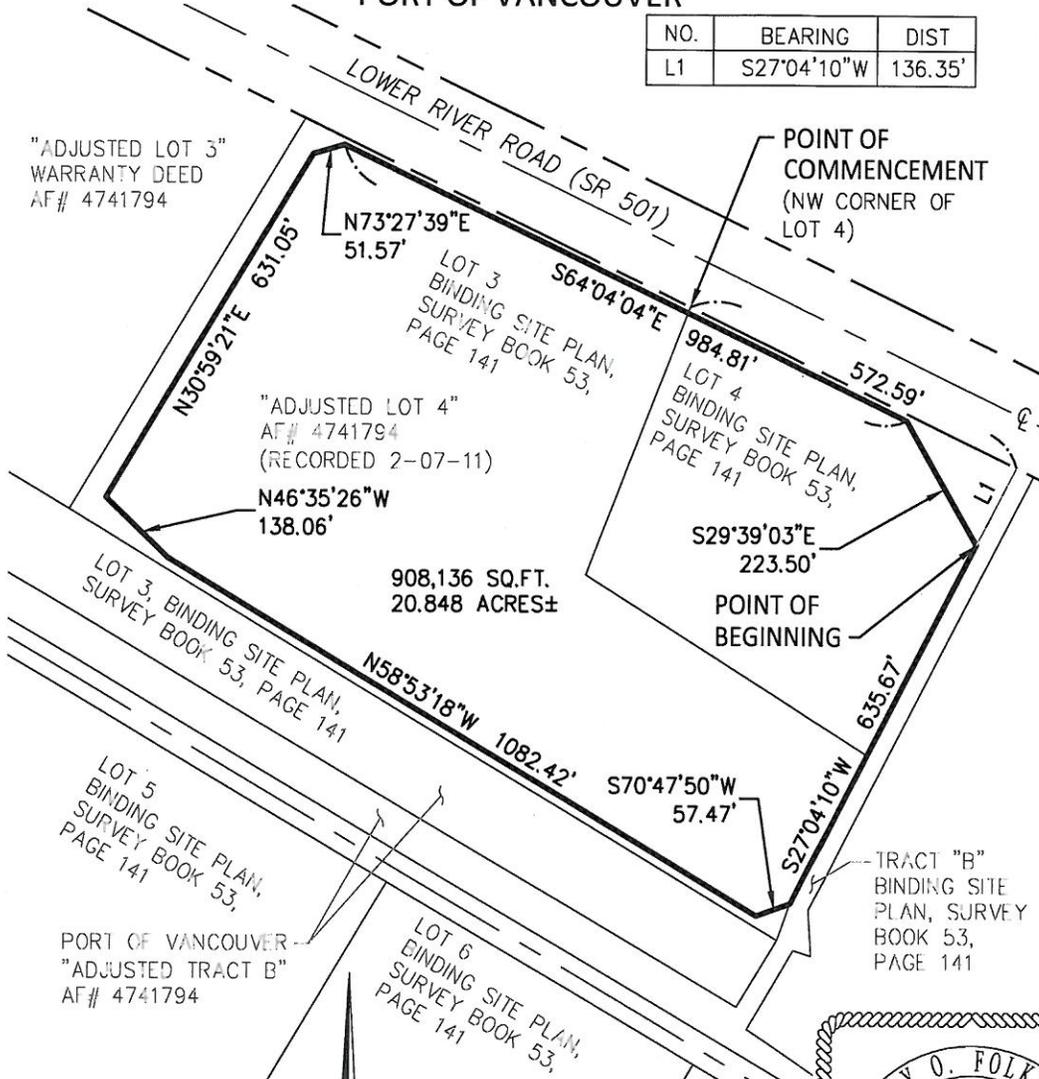
Containing 908,136 square feet or approximately 20.848 acres.

Subject to easements and restrictions of record.

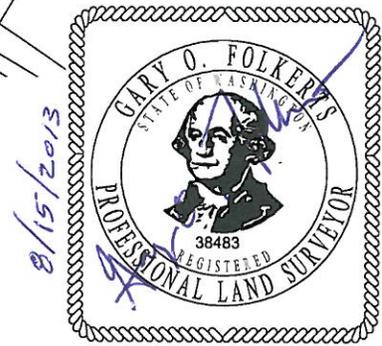


**SKETCH TO ACCOMPANY LEGAL DESCRIPTION
AREA 300 LEASE PARCEL
(TANK FARM)
PORT OF VANCOUVER**

NO.	BEARING	DIST
L1	S27°04'10"W	136.35'



- N - 1" = 300'
08/13/2013



MacKay Sposito

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1325 SE TECH CENTER DRIVE, SUITE 140
VANCOUVER, WA 98683
VANCOUVER: (360) 695-3411
PORTLAND: (503) 289-6726
FAX (360) 695-0833

LEGAL DESCRIPTION
AREA 400 LEASE PARCEL
(DOCK AREA)
PORT OF VANCOUVER

Real property situated in the City of Vancouver, Clark County, Washington, being a portion of the Henry Van Alman Donation Land Claim, lying in the Northeast quarter of Section 19 and West half of Section 20, Township 2 North, Range 1 East of the Willamette Meridian, described as follows:

Portions of Tract E, Lot 8, Lot 9, Lot 10 and Lot 12 of that Port of Vancouver Binding Site Plan recorded in Book 53 of Surveys, at Page 141, records of said county, together with bedlands of the Columbia River, described as follows:

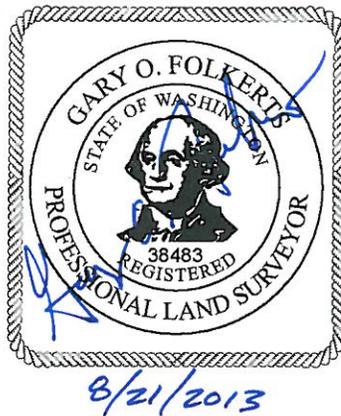
(The following description is referenced to the Washington coordinate system of 1983, south zone. Divide the following "grid" distances by a combined scale factor of 1.000042242 to determine "ground" distances.)

Commencing at the most Southerly corner of Lot 9 of said Binding Site Plan, said corner also being an angle point on the Easterly line of Tract E of said Binding Site Plan and a point on the Southwesterly line of Lot 10 of said Binding Site Plan; thence along the East line of said Lot 9 and the Southwesterly line of said Lot 10 North 30° 25' 37" East 19.79 feet to the **Point of Beginning**; thence continuing along said East line and Southwesterly line North 30° 25' 37" East 94.41 feet to the most easterly corner of said Lot 9; thence along the easterly extension of the Northerly line of said Lot 9 South 59° 21' 27" East 74.61 feet; thence South 30° 11' 28" West 191.81 feet; thence North 63° 19' 37" West 152.13 feet; thence South 27° 17' 57" West 155.92 feet; thence South 05° 40' 44" West 39.58 feet; thence South 61° 43' 01" East 22.47 feet; thence South 24° 35' 09" West 5.54 feet; thence South 62° 39' 54" East 144.39 feet; thence North 67° 31' 17" East 151.57 feet; thence South 62° 35' 00" East 176.85 feet; thence South 27° 25' 00" West 37.00 feet; thence North 62° 35' 00" West 181.86 feet; thence South 67° 31' 17" West 119.40 feet; thence South 27° 32' 15" West 8.61 feet; thence South 87° 13' 52" West 7.43 feet; thence North 62° 37' 45" West 747.33 feet; thence North 28° 47' 14"

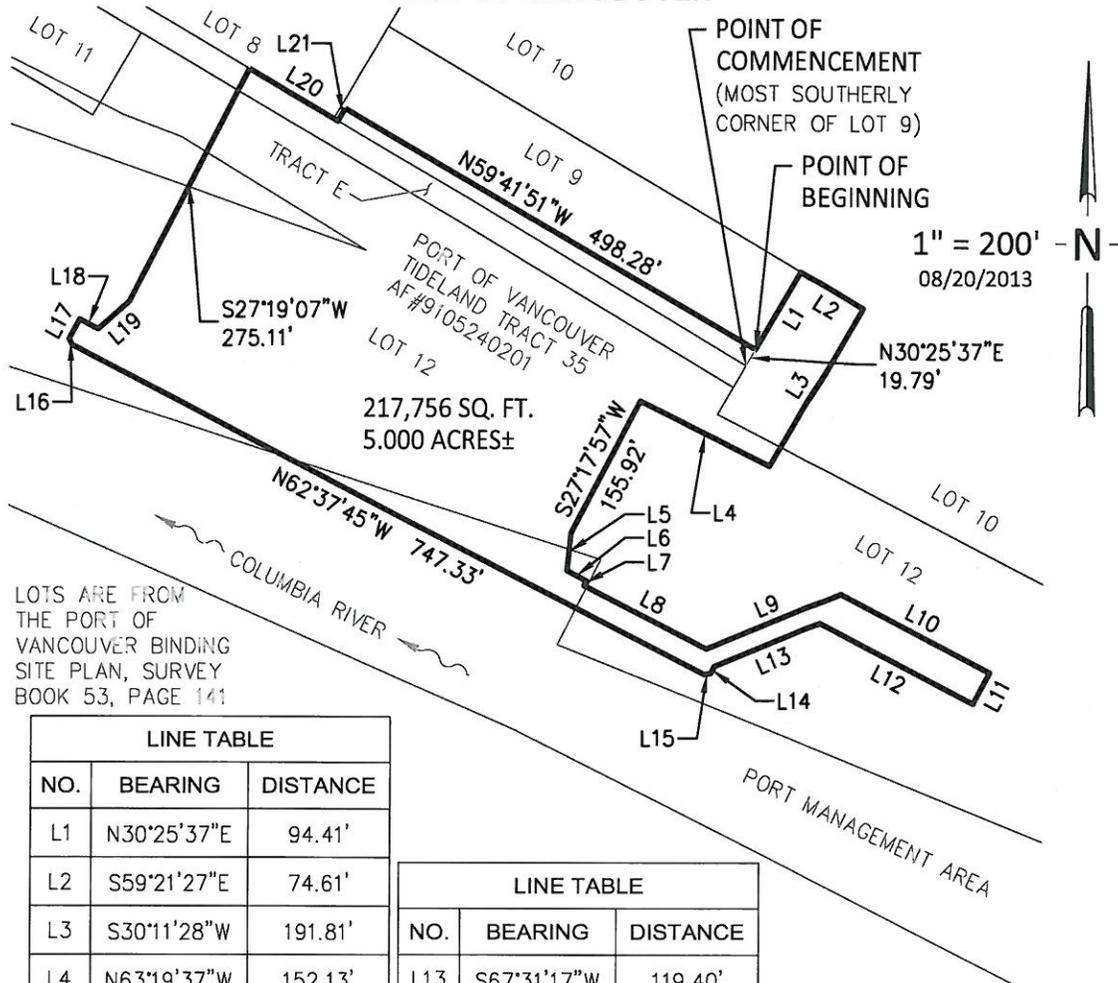
West 7.14 feet; thence North 27° 57' 57" East 23.38 feet; thence South 62° 23' 26" East 21.91 feet; thence North 48° 37' 27" East 43.19 feet; thence North 27° 19' 07" East 275.11 feet to a point on the Southerly line of Lot 8 of said Binding Site Plan and the Northerly line of Tract E of said Binding Site Plan; thence along said Southerly line and said Northerly line South 59° 41' 51" East 108.26 feet; thence North 30° 20' 13" East 15.09 feet; thence South 59° 41' 51" East 498.28 feet to the **Point of Beginning**.

Containing 217,756 square feet or approximately 5.000 acres.

Subject to easements and restrictions of record.



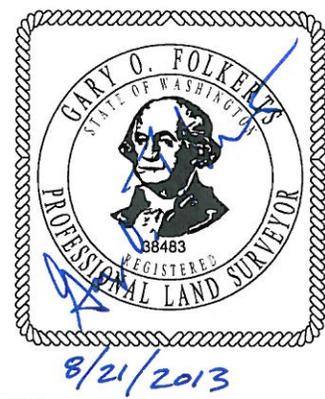
**SKETCH TO ACCOMPANY LEGAL DESCRIPTION
AREA 400 LEASE PARCEL (DOCK AREA)
PORT OF VANCOUVER**



LOTS ARE FROM THE PORT OF VANCOUVER BINDING SITE PLAN, SURVEY BOOK 53, PAGE 141

LINE TABLE		
NO.	BEARING	DISTANCE
L1	N30°25'37\"E	94.41'
L2	S59°21'27\"E	74.61'
L3	S30°11'28\"W	191.81'
L4	N63°19'37\"W	152.13'
L5	S05°40'44\"W	39.58'
L6	S61°43'01\"E	22.47'
L7	S24°35'09\"W	5.54'
L8	S62°39'54\"E	144.39'
L9	N67°31'17\"E	151.57'
L10	S62°35'00\"E	176.85'
L11	S27°25'00\"W	37.00'
L12	N62°35'00\"W	181.86'

LINE TABLE		
NO.	BEARING	DISTANCE
L13	S67°31'17\"W	119.40'
L14	S27°32'15\"W	8.61'
L15	S87°13'52\"W	7.43'
L16	N28°47'14\"W	7.14'
L17	N27°57'57\"E	23.38'
L18	S62°23'26\"E	21.91'
L19	N48°37'27\"E	43.19'
L20	S59°41'51\"E	108.26'
L21	N30°20'13\"E	15.09'



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LEGAL DESCRIPTION
TSJV PIPELINE EASEMENT
PORT OF VANCOUVER

An easement over real property situated in the City of Vancouver, Clark County, Washington, being portions of the Patrick Markey and Henry Van Allman Donation Land Claims and lying in the Northeast quarter of Section 19 and the Northwest quarter of Section 20, Township 2 North, Range 1 East of the Willamette Meridian described as follows:

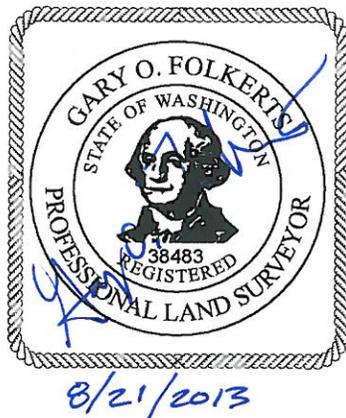
(The following description is referenced to the Washington coordinate system of 1983, south zone. Divide the following "grid" distances by a combined scale factor of 1.000042242 to determine "ground" distances.)

Commencing at the Southwest corner of Lot 1 of that Port of Vancouver Binding Site Plan recorded in Book 53 of Surveys at page 141, said corner also being the Northwest corner of Lot 2 of said Binding Site Plan; thence along the North line of said Lot 2 and the South line of said Lot 1 South 59° 11' 50" East 823.17 feet to the Southeast corner of said Lot 1 and Northeast corner of said Lot 2; thence South 58° 01' 57" East 1490.93 feet; thence South 46° 35' 26" East 37.45 feet to the **Point of Beginning**; thence continuing South 46° 35' 26" East 22.81 feet; thence South 72° 09' 05" West 52.29 feet; thence South 30° 52' 03" West 42.64 feet; thence North 59° 26' 51" West 1328.32 feet; thence South 53° 38' 53" West 506.54 feet; thence North 54° 31' 45" West 13.58 feet; thence South 34° 35' 33" West 630.61 feet; thence South 55° 24' 27" East 13.79 feet; thence South 35° 00' 51" West 559.97 feet; thence South 59° 41' 51" East 392.03 feet; thence South 27° 19' 07" West 26.04 feet; thence North 59° 41' 51" West 465.77 feet; thence North 35° 00' 51" East 585.75 feet; thence North 45° 37' 43" East 163.25 feet; thence North 34° 35' 33" East 481.35 feet; thence North 54° 17' 43" West 198.21 feet; thence North 72° 55' 24" West 534.82 feet; thence North 65° 54' 17" West 266.66 feet; thence North 83° 29' 56" West 49.28 feet to a point of curvature with a 1000.37 foot radius curve; thence along said curve to the right, through a central angle of 24° 23' 49", an arc distance of 425.96 feet; thence North 35° 01' 15" East 55.15 feet to a point on the arc of a 945.37 foot radius curve; thence from a tangent bearing of South 59° 20' 31" East, along said curve to the left, through a central angle of 02° 26' 10", an arc distance of 40.19 feet; thence South 35° 01' 15" West 15.10 feet to a point on the arc of a 960.37 foot radius curve; thence from a tangent bearing of South 61° 40' 17" East, along said

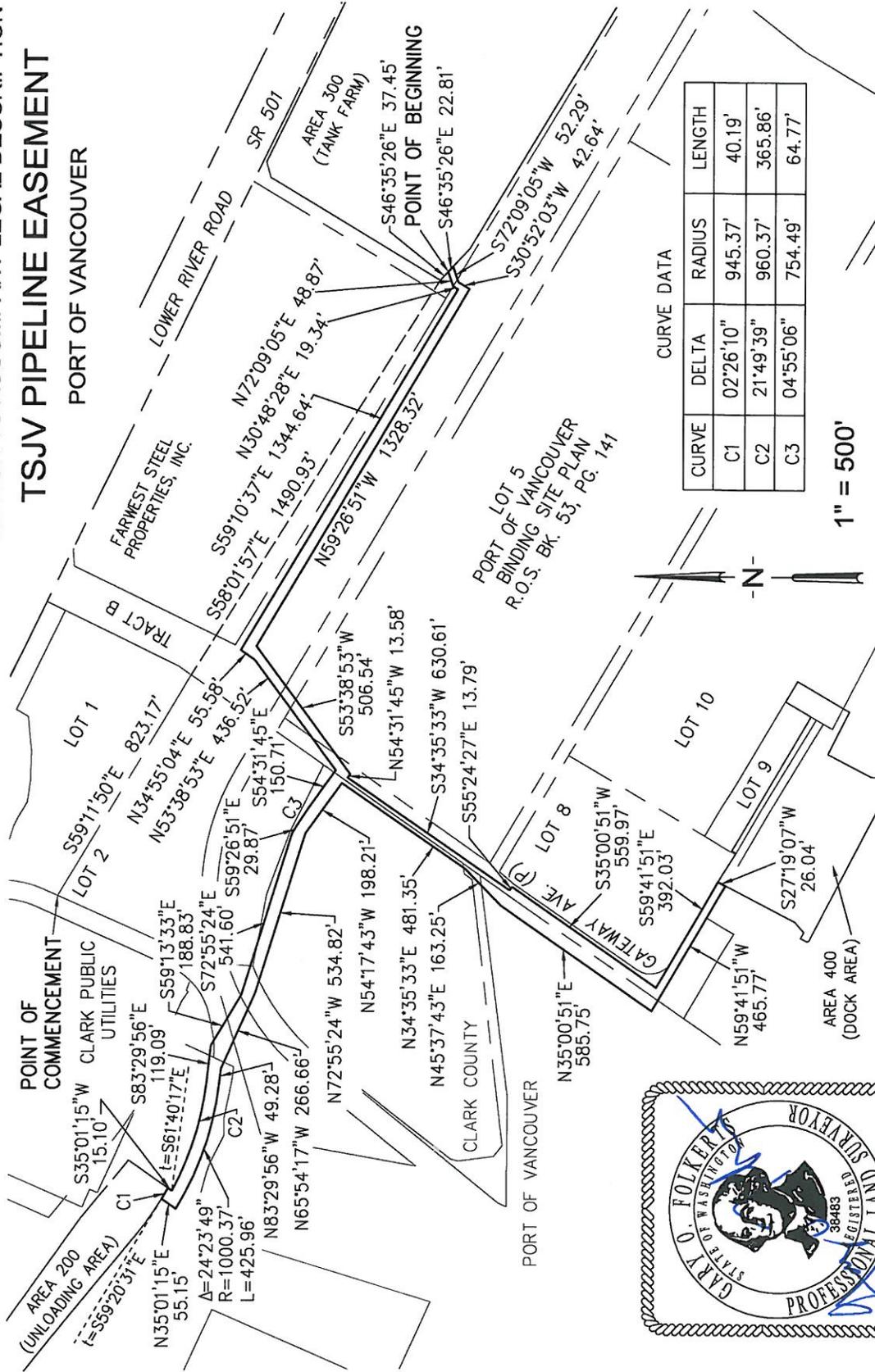
curve to the left, through a central angle of $21^{\circ} 49' 39''$, an arc distance of 365.86 feet to a point of tangency; thence South $83^{\circ} 29' 56''$ East 119.09 feet; thence South $59^{\circ} 13' 33''$ East 188.83 feet; thence South $72^{\circ} 55' 24''$ East 541.60 feet; thence South $59^{\circ} 26' 51''$ East 29.87 feet to a point of curvature with a 754.49 foot radius curve; thence along said curve to the right, through a central angle of $04^{\circ} 55' 06''$, an arc distance of 64.77 feet to a point of tangency; thence South $54^{\circ} 31' 45''$ East 150.71 feet; thence North $53^{\circ} 38' 53''$ East 436.52 feet; thence North $34^{\circ} 55' 04''$ East 55.58 feet; thence South $59^{\circ} 10' 37''$ East 1344.64 feet; thence North $30^{\circ} 48' 28''$ East 19.34 feet; thence North $72^{\circ} 09' 05''$ East 48.87 feet to the **Point of Beginning**.

Containing 194,730 square feet or approximately 4.470 acres.

Subject to easements and restrictions of record.



SKETCH TO ACCOMPANY LEGAL DESCRIPTION
TSJV PIPELINE EASEMENT
 PORT OF VANCOUVER



CURVE DATA

CURVE	DELTA	RADIUS	LENGTH
C1	02°26'10"	945.37'	40.19'
C2	21°49'39"	960.37'	365.86'
C3	04°55'06"	754.49'	64.77'

1" = 500'

Mackay Sposito

LEGAL DESCRIPTION
TSJV RAIL AREA
PORT OF VANCOUVER

Real property situated in the City of Vancouver, Clark County, Washington, being portions of the Patrick Markey and John Mathews Donation Land Claims and lying in the South half of Section 18 and the North half of Section 19, Township 2 North, Range 1 East of the Willamette Meridian described as follows:

A portion of "Parcel 1" as conveyed to Port of Vancouver by Evergreen Aluminum, LLC by deed recorded under Auditor's File No. 4526464, a portion of "Parcel 1" as conveyed to Port of Vancouver by Alcoa by deed recorded under Auditor's file No. 4547240, a portion of that parcel conveyed to the Port of Vancouver by Clark County Public Utilities by deed recorded under Auditor's File No. 4607518 and a portion of "Parcel 1" as conveyed to the Port of Vancouver by BNSF by deed recorded under Auditor's File No. 4524400, records of said county, described as follows:

(The following description is referenced to the Washington coordinate system of 1983, south zone. Divide the following "grid" distances by a combined scale factor of 1.000042242 to determine "ground" distances.)

Commencing at the Southeast corner of Lot 1 of that Port of Vancouver Binding Site Plan recorded in Book 53 of Surveys at page 141, said corner also being the Northeast corner of Lot 2 of said Binding Site Plan; thence along the North line of said Lot 2 and the South line of said Lot 1 North 59° 11' 50" West 823.17 feet to the Southwest corner of said Lot 1 and Northwest corner of said Lot 2; thence South 74° 49' 47" West 877.26 feet to a point hereinafter referred to as **Point "A"**; thence North 51° 51' 45" West 12.52 feet; thence North 50° 40' 40" West 226.20 feet; thence North 54° 31' 45" West 1651.32 feet; thence South 35° 28' 15" West 58.57 feet to the **Point of Beginning**; thence continuing South 35° 28' 15" West 45.04 feet to a point on the arc of a 782.31 foot radius curve; thence from a tangent bearing of North 55° 29' 36" West, along said curve to the left, through a central angle of 100° 21' 04", an arc distance of 1370.19 feet; thence South 24° 11' 06" West 235.78 feet to a point of curvature with a 741.50 foot radius curve; thence along said curve to the left, through a central angle of 90° 01' 28", an arc distance of 1165.06 feet to a point of tangency; thence

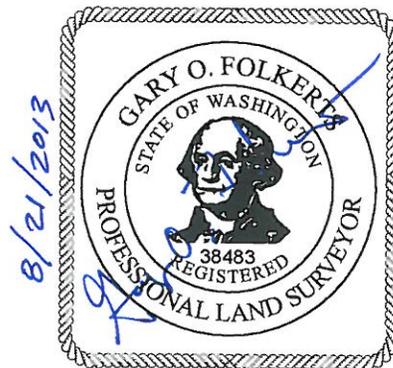
South 65° 50' 21" East 1314.77 feet to a point of curvature with a 756.00 foot radius curve; thence along said curve to the left, through a central angle of 68° 14' 24", an arc distance of 900.41 feet to a point of tangency; thence North 45° 55' 15" East 423.19 feet to a point of curvature with a 683.19 foot radius curve; thence along said curve to the right, through a central angle of 25° 58' 16", an arc distance of 309.68 feet to a point of tangency; thence North 71° 53' 31" East 124.58 feet; thence South 18° 06' 29" East 17.00 feet; thence South 71° 53' 31" West 30.86 feet; thence South 66° 41' 13" West 93.31 feet to a point of curvature with a 666.44 foot radius curve; thence along said curve to the left, through a central angle of 12° 33' 43", an arc distance of 146.11 feet to a point of tangency; thence South 54° 07' 30" West 118.70 feet to a point of curvature with a 666.19 foot radius curve; thence along said curve to the left, through a central angle of 08° 12' 15", an arc distance of 95.39 feet to a point of tangency; thence South 45° 55' 15" West 358.18 feet to a point of curvature with a 788.00 foot radius curve; thence along said curve to the right, through a central angle of 68° 14' 24", an arc distance of 938.52 feet to a point of tangency; thence North 65° 50' 21" West 1314.77 feet to a point of curvature with a 773.50 foot radius curve; thence along said curve to the right, through a central angle of 90° 01' 28", an arc distance of 1215.34 feet to a point of tangency; thence North 24° 11' 06" East 249.02 feet to a point on the arc of a 814.31 foot radius curve; thence from a tangent bearing of North 24° 09' 20" East, along said curve to the right, through a central angle of 100° 34' 18", an arc distance of 1429.37 feet to the **Point of Beginning**.

Subject to easements and restrictions of record.

Also:

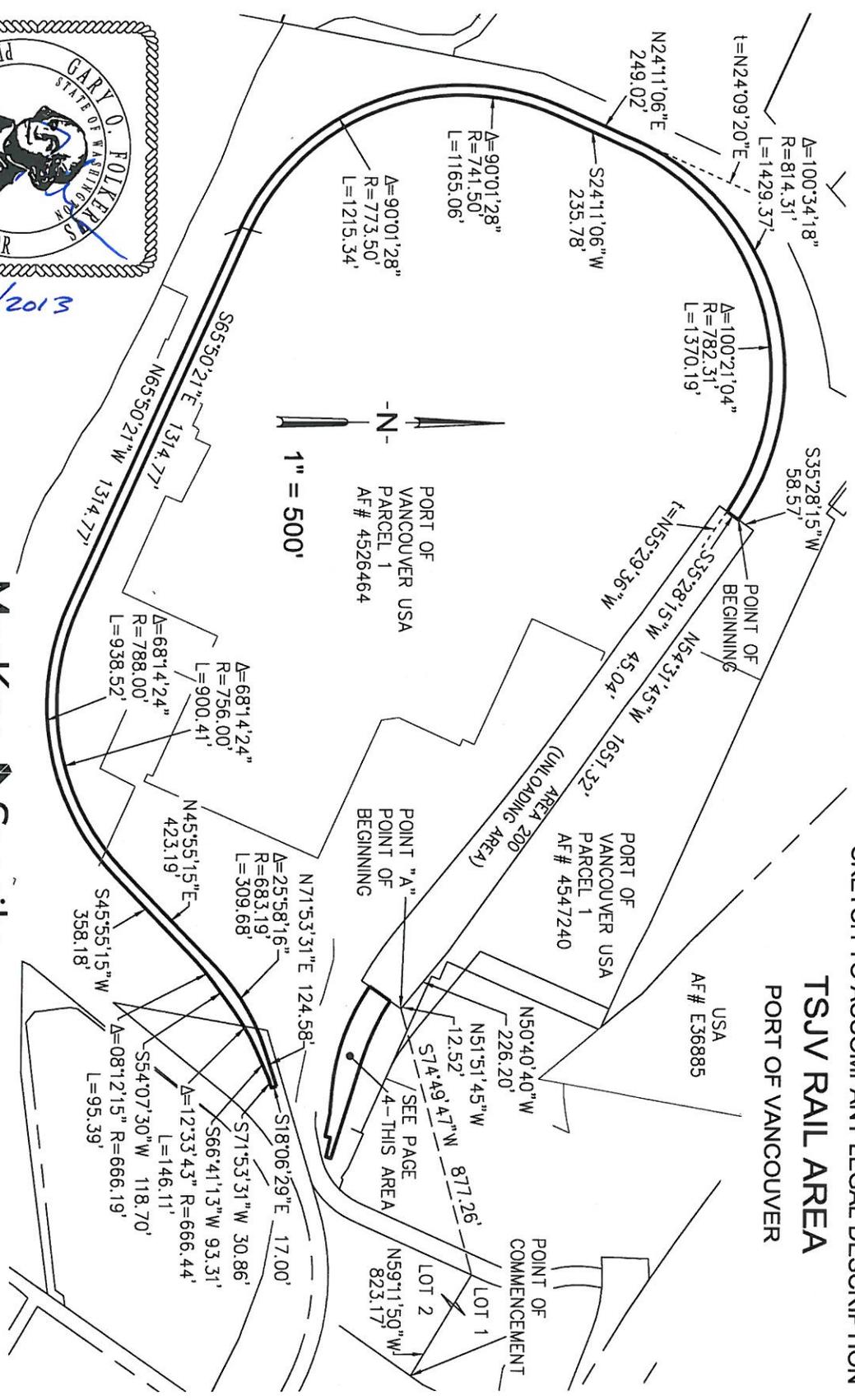
Commencing at said "**Point A**"; thence South 35° 01' 15" West 42.09 feet to the **Point of Beginning**; thence continuing South 35° 01' 15" West 80.06 feet to a point on the arc of a 683.19 foot radius curve; thence from a tangent bearing of South 55° 23' 23" East, along said curve to the left, through a central angle of 29° 40' 14", an arc distance of 353.79 feet to a point of tangency; thence South 85° 03' 37" East 77.74 feet; thence South 78° 42' 02" East 73.70 feet; thence North 11° 17' 58" East 17.00 feet; thence South 77° 08' 21" East 63.24 feet; thence North 17° 13' 10" East 17.00 feet; thence North 72° 46' 50" West 328.32 feet to a point of curvature with a 755.99 foot radius curve; thence along said curve to the right, through a central angle of 15° 54' 46", an arc distance of 209.96 feet to the **Point of Beginning**.

Subject to easements and restrictions of record.





8/21/2013



SKETCH TO ACCOMPANY LEGAL DESCRIPTION
TSJV RAIL AREA
 PORT OF VANCOUVER

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PAGE 3 OF 4
 15622SS5



8/21/2013

AREA 200
(UNLOADING AREA)
SEE PAGE 3 OF 4

POINT "A"

S35°01'15"W
80.06'

POINT OF BEGINNING

A=29°40'14"
R=683.19'
L=353.79'

A=15°54'46"
R=755.99'
L=209.96'

CLARK PUBLIC UTILITIES

SKETCH TO ACCOMPANY LEGAL DESCRIPTION

TSJV RAIL AREA

PORT OF VANCOUVER

1" = 100'

-N-



S85°03'37"E
77.74'

N72°46'50"W
328.32'

S78°42'02"E
73.70'

N11°17'58"E
17.00'

S77°08'21"E
63.24'

N17°13'10"E
17.00'

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PAGE 4 OF 4
15622555

2.2.2 Ownership Interests

The parcels upon which the Facility is proposed are owned by the Port. The Applicant entered into a lease with the Port for the exclusive use of the property located within the site boundary and non-exclusive easements for the transfer pipeline corridor. A complete copy of the lease has been provided to EFSEC under separate cover. The following pages present the main substantive requirements of the lease.

2.2.2 Ownership Lease

GROUND LEASE
BETWEEN
THE PORT OF VANCOUVER, U.S.A.
AND
TESORO SAVAGE PETROLEUM TERMINAL LLC

Commission Approval Date: July 23, 2013

Effective Date: August 1, 2013

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EXHIBIT "A"	OUTLINE OF PREMISES LOCATION WITHIN THE OVERALL PORT PROPERTY
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EXHIBIT "C"	LEGAL DESCRIPTION
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EXHIBIT “E”	GLOSSARY OF TERMS
EXHIBIT “F”	RULES AND REGULATIONS
EXHIBIT “G”	GUARANTY
EXHIBIT “H”	TENANT ENVIRONMENTAL QUESTIONNAIRE
EXHIBIT “I”	NEW PRODUCT APPROVAL PROCESS
EXHIBIT “J”	RAIL OPERATIONS
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EXHIBIT “M”	CONSENT DECREE
EXHIBIT “N”	RESTRICTIVE COVENANTS
EXHIBIT “O”	FORM OF CARGO COMMODITY PAYMENTS AND MINIMUM ANNUAL GUARANTY AGREEMENT
EXHIBIT “P”	PORT MANAGEMENT AGREEMENT
EXHIBIT “Q”	MONITORING WELLS

GROUND LEASE

THIS GROUND LEASE is made by and between the PORT OF VANCOUVER, a municipal corporation organized and existing under the laws of the State of Washington, hereinafter referred to as “Lessor,” and TESORO SAVAGE PETROLEUM TERMINAL LLC, a Delaware limited liability company, hereinafter referred to as “Lessee.” Capitalized terms have the meanings set forth in the Glossary of Terms attached hereto as Exhibit “E” or as defined elsewhere in this Lease.

WITNESSETH:

That the Parties do hereby mutually agree as follows:

1. **BASIC LEASE PROVISIONS:** These are provisions of this Lease, except as they may be modified hereafter.

- A. DATE OF GROUND LEASE: August 1, 2013 (referred to herein as the “Effective Date”).
- B. PRELIMINARY AND FINAL PREMISES DESCRIPTIONS: As of the Effective Date, the Parties have not determined the precise boundaries of the Premises. During the Contingency Period, Lessor and Lessee shall develop mutually agreeable depictions and legal descriptions of the Rail/Rack Area, the Support Areas, the Storage Area, and the Marine Terminal Area (collectively, the “Final Premises”), which shall replace Exhibits “A”, “B-1”, “B-2” and “B-3” attached hereto on the Effective Date. Until such substitution has occurred, the Premises shall consist of the following (the “Preliminary Premises”):
- The area outlined on the attached Exhibits “A”, “B-1”, “B-2” and “B-3”, all in “AS-IS” condition, all as described more particularly in Paragraph 2 below, and consisting of:
- “Rail/Rack Area”: Approximately 9.92 acres (432,115 square feet) of land area for construction and operation of a petroleum products unloading facility, including exclusive rail tracks as described in Exhibit “J” and more particularly depicted on Exhibit “B-1”.
- “Support Areas”: Approximately 1.54 acres (67,082 square feet) (“Support Area A”) and approximately 3.93 acres (171,191 square feet) (“Support Area B”) of land for administrative and rail operations support activities for the Facility, more particularly depicted on Exhibit “B-1”.

“Storage Area”: Approximately 20.84 acres (969,210 square feet) of vacant land to be used for construction and use of petroleum products storage tanks and more particularly depicted on Exhibit “B-2”. The possession of the Storage Area will be delivered in two phases (Phase 1, approximately 15.97 acres; and Phase 2, approximately 4.87 acres) as described in Paragraph 3.E below.

“Marine Terminal Area”: Approximately 5.76 acres (250,906 square feet) consisting of the berthing areas commonly known as Berth 13 and Berth 14, Terminal 4, to be used exclusively by Lessee for the loading of Petroleum Products onto vessels docked at the Marine Terminal Area from time to time. The Marine Terminal Area is to be used in accordance with the terms of this Lease.

C. TERM:

Initial Lease Term:

The term of this Lease shall commence on the Effective Date, and shall continue for a full one hundred twenty (120) months after the Rent Commencement Date (i.e., ending at midnight on the last day of the calendar month that is a full 120 months after the Rent Commencement Date), unless sooner terminated in accordance with the terms and provisions of this Lease. The period from the Rent Commencement Date until the end of the term of this Lease (including any exercised Extension Terms) is referred to herein as the “Operating Term”.

Extension Terms:

Lessee is granted two (2) successive options to extend, each for an additional Extension Term of five (5) years. The Extension Term(s) must be exercised in accordance with the provisions of Paragraph 3.B.

Early Termination:

If any or all of the conditions precedent set forth in Paragraph 2.D has not been satisfied or waived on or before the Conditions Precedent Outside Date, either Lessor or Lessee may terminate this Lease on or before the Conditions Precedent Outside Date by written notice of termination to the other Party, without further cost or obligation, except as set forth expressly herein. The security instrument required by the first paragraph of Paragraph 1.G hereof will be retained by Lessor until all outstanding expenses owed to Lessor are reimbursed in full by Lessee.

D. INITIAL FEES AND RENT:

During the Contingency Period: Thirty Thousand Dollars (\$30,000.00) per month during the first eighteen (18) months of the Contingency Period,

and thereafter, until the Conditions Precedent Expiration Date, Fifty Thousand Dollars (\$50,000.00) per month ("Contingency Period Fees").

During the Construction Period: Fifty Thousand Dollars (\$50,000.00) per month until the Rent Commencement Date ("Construction Period Fees").

On and after the Rent Commencement Date: Five and thirty-two one hundredths cents (\$0.0532), multiplied by the annual percentage increases in the Index from the Effective Date until the Rent Commencement Date, per square foot per month ("Base Monthly Rent"), plus Leasehold Tax.

Rent Adjustment:

During the Initial Lease Term and any Extension Term, the Base Monthly Rent shall be increased annually on each anniversary of the Effective Date (each, an "Adjustment Date"). On each annual Adjustment Date, the Base Monthly Rent set forth above shall be adjusted by multiplying the Base Monthly Rent by the percentage increase in the Consumer Price Index All Urban Consumers U.S. City Average (1982-84=100) published by the United States Department of Labor, Bureau of Labor Statistics ("Index"). The percentage increase shall be calculated by comparing the Index that was in effect on the ninetieth (90th) day preceding the Effective Date for the first annual adjustment and prior to the Adjustment Date on each successive annual adjustment to the Index that is in effect on the ninetieth (90th) day preceding the then current Adjustment Date. In the event that the Adjustment Date falls on a day other than the 1st of the month, the adjustment in Base Monthly Rent shall take effect on the first day of the following month.

E. CURRENT LEASEHOLD TAX RATE:

Twelve and 84/100 percent (12.84%).

F. ADDITIONAL CHARGES:

Common Area Maintenance ("CAM") charges: \$.0054 per square foot, as adjusted below, and as described in Paragraph 5.E.

Rail Access Fee ("RAF"): Twenty-Five Dollars (\$25.00) per BNSF-delivering carrier Loaded Rail Car, or Fifty Dollars (\$50.00) per non-BNSF-delivering carrier Loaded Rail Car, pursuant to the terms outlined in Paragraph 5.C.

CAM charges and the Rail Access Fee shall increase annually on the first day of each January ("CAM Adjustment Date"), beginning on January 1, 2014. On each CAM Adjustment Date, the CAM and RAF charges set forth shall be adjusted by multiplying such CAM and RAF charges by the percentage increase in the Consumer Price Index All Urban Consumers U.S. City Average (1982-84=100) published by the United States Department of Labor, Bureau of Labor Statistics ("Index"). The percentage increase for the first annual adjustment shall be calculated by comparing the Index that is in effect on the 1st day of October preceding January 1, 2013 to the Index that is in effect on the 1st day of October preceding January 1, 2014. Each successive annual adjustment will compare the Index in effect on October 1st prior to the previous CAM Adjustment date to the Index that is in effect on October 1st preceding the current CAM Adjustment Date. No such adjustments shall be less than an increase of Two percent (2%) or more than an increase of Six percent (6%) of the CAM and RAF charges in effect immediately prior to such adjustment.

Rail Maintenance Fee: For the Port's Rail System, as determined by the Port's annual Rail Tariff pursuant to the terms outlined in Paragraph 5.D; the Rail Maintenance Fee is, as of the Effective Date, Four Dollars (\$4) per Loaded Rail Car.

Lessee shall be responsible for all individual rail maintenance and repair expenses on all rail spurs and tracks used exclusively by Lessee.

G. LEASE SECURITY AMOUNT:

Bond, letter of credit, or cash in an amount of [REDACTED] Dollars [REDACTED] as and to the extent required in Paragraph 6.

Additionally, as security for payment of the sums to be paid by Lessee to Lessor under the terms of the MGA Agreement, Lessee shall deliver to Lessor a deed of trust creating, for the benefit of Lessor (or the holders of bonds issued by Lessor or a trustee acting for the benefit thereof), a first position security interest on the improvements and Alterations constituting the Facility (as more particularly described in Paragraph 6.B), or such other security instrument as is proposed by Lessee and is acceptable to Lessor in its sole discretion, until such time as Lessee has paid to Lessor, in respect of Wharfage, Service and Facilities Fees, a total of [REDACTED]

H. GUARANTY: If applicable with respect to an assignee, one or more Parent Company Guaranties, in the form attached hereto as Exhibit "G".

I. PERMITTED USE: Rail/Rack Area: (i) Loading and unloading of Petroleum Products by rail, (ii) transfer of such Petroleum Products to and from the Storage Area or the Marine Terminal Area, and (iii) rail operations and other operational and maintenance activities associated with the receipt, loading, unloading and transfer of such Petroleum Products, including but not limited to inspection, repair and storage of rail cars and installation and upgrading of equipment from time to time.

Support Areas: Office, administrative and support activities relating to the operation of the Facility, including installation and upgrading of equipment from time to time.

Storage Area: (i) Storage and blending of Petroleum Products delivered by rail, or vessel via pipeline, to the Rail/Rack Area, (ii) transfer of such Petroleum Products via pipeline to the Marine Terminal Area, and (iii) operational and maintenance activities associated with the storage, blending and transfer of such Petroleum Products, including installation and upgrading of equipment from time to time.

Marine Terminal Area: (i) Loading and unloading of vessels with Petroleum Products delivered to the Premises; and (ii) operational and maintenance activities, including installation and upgrading of equipment from time to time, including equipment used to load and unload Petroleum Products onto and from vessels and the inspection, repair and handling of vessels.

J. PROPERTY INSURANCE: Lessee Provided:

Maximum Deductible:
One Million Dollars (\$1,000,000) and five percent (5%) of values per location (i.e., the Rail/Rack Area, the Support Areas, the Storage Area, and the Marine Terminal Area) for the perils of earthquake and flood; and subject to adjustment pursuant to the provisions of Paragraph 15.

K. LIABILITY INSURANCE: Minimum Coverage Amounts for Paragraph 15.B:
Ten Million Dollars (\$10,000,000) per occurrence/
Fifteen Million Dollars (\$15,000,000) aggregate; subject to adjustment pursuant to the provisions of Paragraph 15.

Minimum Coverage Amounts for Paragraph 15.D(4) – Employer Liability Act:
One Million Dollars (\$1,000,000).

Minimum Coverage Amounts for Paragraph 15.D(5) – Automobile Liability:
One Million Dollars (\$1,000,000) per occurrence.

L. POLLUTION LEGAL LIABILITY INSURANCE

Lessee shall also obtain pollution legal liability insurance in the amount of Twenty-Five Million Dollars (\$25,000,000) as an extension of the commercial general liability insurance or as a separate policy, and further pursuant to the provisions of Paragraph 15.C.

M. ADDRESSES FOR NOTICE PURPOSES:

Notices to Lessor shall be sent to:

The Port of Vancouver, U.S.A.
3103 NW Lower River Road
Vancouver, WA 98660
Attention: Executive Director
Telephone: 360-693-3611
Facsimile: 360-735-1565

With a copy to:

Alicia Lowe, POV General Counsel
Schwabe, Williamson & Wyatt
700 Washington Street, Suite 701
Vancouver, WA 98660
Telephone: 360-694-7551
Facsimile: 360-693-5574

Notices to Lessee shall be sent to:

Tesoro Savage Petroleum Terminal LLC
c/o Savage Services Corporation
6340 South 3000 East, Suite 600
Salt Lake City, Utah 84121
Attention: Group Leader, Oil and Gas Solutions
Email: [REDACTED]
Facsimile: [REDACTED]

With a copy to:

Savage Companies
6340 South 3000 East, Suite 600
Salt Lake City, Utah 84121
Attention: General Counsel
Email: [REDACTED]
Facsimile: [REDACTED]

And to:

Tesoro Refining & Marketing Company LLC
19100 Ridgewood Parkway

San Antonio, Texas 78259
Attention: Senior Director, Managing Attorney,
Commercial

Email: [REDACTED]
Facsimile: [REDACTED]

N. **BROKERS:**

Lessor's Broker: None
Lessee's Broker: None

Lessor shall lease the Premises (as defined below in Paragraph 2) to Lessee, and Lessee shall lease the Premises from Lessor, in accordance with the Terms of this Lease, after Lessor and Lessee execute this Lease, which consists of _____ pages including Exhibits A, B-1, B-2, B-3, C, D, E, F, G, H, I, J, K, L, M, N, O, P, and Q. Any and all exhibits attached hereto are made a part of this Lease and incorporated herein.

2. **PREMISES:**

A. Lessor hereby leases to Lessee and Lessee hereby leases from Lessor, subject to and with the benefit of the terms and conditions of this Lease, including the attached exhibits, the Preliminary Premises, located in the Port District of the Port of Vancouver, hereinafter known as the "Port," located in the City of Vancouver, Clark County, Washington, as described in Paragraph 1.B and as represented by the area outlined on the attached Exhibits "A", "B-1", "B-2", and "B-3" together with the nonexclusive right of ingress and egress to and from the Premises across those portions of the Port dedicated from time to time as streets, roadways, and Common Areas. Lessor further agrees to convey to Lessee one or more nonexclusive pipeline easements for the purpose of constructing and maintaining pipelines to transport Lessee's Petroleum Products between the Rail/Rack Area, the Support Areas, the Storage Area, and the Marine Terminal Area, substantially in the form of Pipeline Easement Agreement attached hereto as Exhibit "K" (each, a "Pipeline Agreement"). Except for the Existing Environmental Conditions as generally described below in Paragraph 2.C, Lessee hereby accepts said Premises in "As-Is" condition. Notwithstanding that Lessee accepts the Premises in "As Is" condition, Lessor shall, prior to the Rent Commencement Date and at Lessor's sole cost and expense, complete the improvements to the Port that are described as "Lessor's Infrastructure Improvements" on Exhibit "D" attached hereto, to enable Lessee to fully utilize the Premises for the Permitted Use.

B. It is understood that the Premises constitute a portion of a multiple occupancy area, including warehouses and office buildings, in the Port. During the term hereof and subject to the covenants, terms and conditions hereof, Lessee, and its agents, employees, customers, invitees, and licensees, shall have the nonexclusive

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right to use, in common with Lessor and other lessees of building and unimproved land space in the Port, and their agents, employees, customers, invitees, and licensees, thereto, all Common Areas. Lessee shall use Common Areas in conformity with the reasonable rules and regulations and changes thereto from time to time promulgated by Lessor after written notice of any changes to such rules and regulations has been provided to Lessee. The manner and nature of the installation and maintenance of the Common Areas shall be subject to the sole discretion of Lessor, but in a manner consistent with the requirements of Paragraph 5.E below. Lessor reserves the right from time to time to make changes in the shape, size, location and extent of Common Areas provided that, except as may be required by law or government agencies, no such change shall materially adversely affect Lessee's Permitted Use of the Premises or Lessee's means of access to and from the Premises. Lessor further retains the right to temporarily close Common Areas from time to time in order to prevent a dedication thereof or for the making of repairs or performance of maintenance. No such temporary closures shall prevent Lessee's normal business operations at the Premises or materially adversely and unreasonably affect Lessee's access to and from the Premises.

C. Lessor and Lessee acknowledge that portions of the Premises and portions of the areas to which Lessee may be granted an easement pursuant to a Pipeline Agreement are subject to the Consent Decree, in which the previous land owner agreed to remediate the Premises. Portions of the Premises and portions of the areas to which Lessee may be granted an easement pursuant to a Pipeline Agreement also are subject to the Restrictive Covenants, which require capping of residual contamination and restrict activities that would disturb the contamination. Lessee's possession, including but not limited to Lessee's use and operations, throughout the Term(s) of the Lease, shall be consistent with all requirements of the Consent Decree and Restrictive Covenants, which are incorporated by reference in this Lease. Lessor shall be responsible for proper management of all Existing Environmental Conditions, including in connection with the pre-occupancy construction of improvements on the Premises, all as set forth in Paragraph 11.B hereof. Lessor, with Lessee's cooperation, will obtain the necessary approvals from the Washington Department of Ecology so as to allow Lessor or Lessee to modify any monitoring well location or cap, including modifications to conduct baseline and geotechnical testing, for pre-occupancy construction of improvements and pre-occupancy construction of the tenant improvements necessary for the Permitted Use (provided Lessee presents a reasonable design which is consistent with the Consent Decree and Restrictive Covenants, as well as the other terms and conditions of this Lease) of the Premises under this Lease. Lessee (with Lessor's reasonable cooperation, but at no cost to Lessor) shall be responsible for obtaining any other

licenses, permits and approvals needed for its operations on the Premises, and shall cooperate reasonably with Lessor to ensure that the scope and breadth of such licenses, permits and approvals are adequate for completion of any work to be performed by Lessor under such licenses, permits and approvals.

D. Notwithstanding anything to the contrary set forth herein, the Parties' respective obligations under this Lease (other than: (1) Lessee's obligation to pay the Contingency Period Fee pursuant to Paragraph 4.A; (2) the Parties' obligations to work diligently and in good faith to pursue all necessary licenses, permits and approvals required for the development and construction of the Facility for the Permitted Use; and (3) the indemnity obligations set forth in Paragraphs 11, 13, 16, 23, and 39; each of which such obligations set forth in this Paragraph 2.D shall be absolute and irrevocable as of the Effective Date through the date of any termination based on the failure of the Conditions Precedent) shall be subject to satisfaction or waiver of the following Conditions Precedent on or before the Conditions Precedent Outside Date:

(1) all necessary licenses, permits and approvals have been obtained for the Permitted Use;
and

(2) Lessee shall obtain a baseline investigation of environmental conditions at the Premises by an independent, reputable professional environmental consultant to assess the presence of contamination on the Premises prior to Lessee's use of the Premises (the "Baseline Assessment"). The selection of such consultant and the scope of work for the Baseline Assessment shall be approved by Lessor prior to the engagement of the consultant or the initiation of the assessment work. The scope of work shall include the sampling and analysis plan for the Baseline Assessment.

The Condition Precedent in Paragraph 2.D(1) is for the benefit of both Lessor and Lessee. The Condition Precedent in Paragraph 2.D(2) is for the sole benefit of Lessee. If the Conditions Precedent are satisfied or waived by the Party or Parties to whose benefit they run on or before the Conditions Precedent Outside Date, then Lessee shall promptly commence construction of the Facility. If neither Party provides the other Party with a termination notice on or before the Conditions Precedent Outside Date, the Conditions Precedent shall then be deemed satisfied.

During the Contingency Period, Lessor and Lessee shall work diligently and in good faith to: develop and approve depictions and legal descriptions of the Final Premises (the cost of preparation thereof to be borne by Lessor), and such depictions and legal descriptions shall, prior to the Conditions Precedent Expiration Date, be substituted into this Lease as replacement Exhibits "A", "B-1", "B-2" and "B-3" by a mutually executed

amendment to this Lease; and develop and mutually approve milestones and preliminary engineering and construction plans, specifications and designs (to be submitted by Lessee to Lessor for Lessor's review and approval), and rail track plans and specifications, for the development, construction, and operation of the Facility. Notwithstanding anything to the contrary herein, if Lessor is not reasonably satisfied on or before the Conditions Precedent Outside Date that Lessee is prepared to, and intends to, commence construction within [REDACTED] after the Conditions Precedent Expiration Date, Lessor may terminate this Lease without any further obligations on the part of either Party hereto, except as expressly set forth herein.

E. Lessee's use of the Rail/Rack Area shall be at all times in accordance with and subject to the terms, conditions, and limitations set forth in Exhibit "J" ("Rail Operations") attached hereto.

F. During the first twelve (12) months of the Contingency Period (unless otherwise expressly agreed in writing by the Parties), Lessor may use the Premises, and allow third parties to use the Premises, for any and all purposes other than the Permitted Use, so long as such use does not unreasonably change the condition of the Premises in such a way that would inhibit Lessee's development of the Facility following the Conditions Precedent Expiration Date.

3. **LEASE TERM:**

A. In accordance with the terms and conditions of this Lease, but subject to Paragraph 3.F below, Lessee shall have and hold the Premises commencing on the Conditions Precedent Expiration Date, unless this Lease shall be sooner terminated as herein provided.

B. Provided no Default under any of the provisions or covenants of the Lease has occurred which has not been cured, Lessee is hereby granted the number of successive options set forth in Paragraph 1.C to extend the Term of this Lease, each for an additional Extension Term as set forth in Paragraph 1.C (each of which periods is referred to herein as an "Extension Term"). Lessee shall exercise each option by giving written notice (the "Exercise Notice") to Lessor of its intent to extend the Lease Term no less than One Hundred Eighty (180) days prior to the expiration of the then current Term. Upon the timely exercise of the option to extend and subject to the assent of the Port, which shall not be unreasonably withheld, the Extension Term shall be on the same terms and conditions, except Base Monthly Rent, contained in the Lease. Base Monthly Rent for the Extension Term shall not be less than the Base Monthly Rent provided for herein. Base Monthly Rent shall be in the amount set forth below and there shall be no further options to extend the Term beyond the number of Extension Terms set forth in

Paragraph 1.C. Any attempted exercise of an option to extend the Term shall be null and void and wholly ineffective unless this Lease is still in full force and effect and Lessee shall not be in Default beyond applicable notice and cure periods under the terms of this Lease. For any assignment of this Lease requiring Lessor's approval or consent pursuant to Paragraph 19, Lessor's express approval shall also be required in order for any extension options available to Lessee to be included with the assignment of the Lease, with the same standard of consent (i.e., sole or reasonable discretion) applicable for Lessor's approval of the assignment of the Lease also being applicable to Lessor's approval of the assignment of the extension options. For any assignment of this Lease not requiring Lessor's approval or consent pursuant to Paragraph 19, any extension options available to Lessee shall be assigned automatically with the assignment of the Lease.

C. If Lessee fails to give timely written notice to Lessor of its election to extend the Term, the Term shall expire and this Lease terminate as of the end of the then expiring Term. If the Term is extended as aforesaid, all of the same terms, provisions and conditions set forth in this Lease shall apply, except that the Base Monthly Rent during the Extension Term shall be as set forth in Paragraphs 1.D and 4.

D. If Lessee timely gives written notice to Lessor of Lessee's first or second election to extend the Term, but Lessor elects to withhold its assent to such extension, then Lessee shall have no obligation, notwithstanding the terms of Paragraph 28 below, to pay for removal of the improvements and Alterations made by Lessee to the Premises. Additionally, in such event, Lessor may not, without compensating Lessee for the same (based on the fair market value thereof), enter into a lease, license or other occupancy agreement with a third party for all or any portion of the Premises whereby the Premises and the improvements and Alterations made by Lessee are used by such third party for a use substantially similar to the Permitted Use.

E. Any reference in this Lease to the "Term" or "Term of this Lease" or "Lease Term" shall mean the Initial Term together with any Extension Term accruing pursuant to Paragraph 3.B. If any option to extend the Term is not exercised strictly in accordance with Paragraph 3.B, then all other options to extend the Term shall automatically terminate and be null and void.

F. Lessee acknowledges that a portion of the Premises is, as of the Effective Date, occupied by a third party tenant, whose lease thereof expires on December 31, 2013. Accordingly, notwithstanding anything to the contrary herein, Lessee shall not have access to or possession of the portion of the Storage Area shown on Exhibit

“B-2” as “Storage Area – Phase 2” until written notice from Lessor to Lessee that such portion of the Premises is available (the “Phase 2 Possession Notice Date”).

4. FEES AND RENT:

A. Lessee agrees to pay, during the Contingency Period, the Contingency Period Fees.

B. Lessee agrees to pay, during the Construction Period, the Construction Period Fees, which will not be credited back to Lessee.

C. Lessee agrees to pay as rental during the Term of this Lease, commencing on the Rent Commencement Date, the Base Monthly Rent set forth in Paragraph 1.D, as adjusted. Lessee also agrees to pay, during the Term of this Lease, commencing on the Effective Date, all Leasehold Taxes, including Leasehold Taxes applied by the Washington State Department of Revenue (“DOR”) with respect to the Premises as determined by the DOR under RCW 82.29A.020. Base Monthly Rent and Leasehold Taxes are referred to collectively herein as the “Rent.” The current Leasehold Tax Rate is set forth in Paragraph 1.E.

D. The Contingency Period Fee, the Construction Period Fee and the Rent shall be paid in advance on or before the first day of the month in which payment is due. All Additional Charges, including those described in Paragraph 5, shall be paid within no more than thirty (30) days from the date of billing. All payments shall be payable at Lessor’s office in Vancouver, Washington without counterclaim, setoff, deduction or defense.

E. If any payment of the Contingency Period Fee, the Construction Period Fee, Rent or Additional Charges due to Lessor is not received within five (5) days from the date herein set for payment, Lessee shall pay to Lessor a late charge in the amount of ten percent (10%) of the payment then due and in arrears and interest on said payment at the “Interest Rate.” Interest shall be calculated on outstanding payments from the date first due until received by Lessor. Lessee shall be responsible for any attorney fees or related charges incurred by Lessor for collection of rent. A charge of Seventy-Five and 00/100 Dollars (\$75.00) shall be levied for any check received which is returned for insufficient funds.

F. Any Contingency Period Fee, Construction Period Fee or Rent payment for any fractional month during the Term hereof shall be prorated on the number of days in such month and payable on the next applicable payment date.

G. The Base Monthly Rent for each Extension Term shall be equal to the greater of: (i) the Base Monthly Rent payable immediately prior to the commencement of such Extension Term, plus an annual rent

adjustment in accordance with Paragraph 1.D, or (ii) the “Fair Market Rent” for the Premises which shall be determined as follows:

“Fair Market Rent” shall mean the effective flat rental rate per square foot received by landlords of comparable water accessible, heavy industrial land in the Vancouver, Washington, metropolitan area with similar amenities and fixtures, assuming Lessor were to put the space in question (in its then-existing “as-is” condition) on the market for lease to a new lessee, assuming a new lessee with comparable attributes to Lessee. In determining such “Fair Market Rent” there shall be taken into account, among other things, (i) rental rates, (ii) concessions then being given to prospective tenants such as construction and other allowances for tenant improvements, moving and other allowances, and (iii) any expenses that would be incurred by a landlord in connection with a third party lease such as leasing commissions, and (iv) the Base Year being utilized to determine such rent. Items referred to in clauses (ii) through (iv) above are hereinafter collectively referred to as “concessions” and Fair Market Rent shall be reduced to the extent necessary to amortize the amount of such concessions over the full term of the Extension Term. Fair Market Rent as of the date of the Extension Term shall be determined by mutual agreement of Lessor and Lessee not later than thirty (30) days after receipt of the Exercise Notice, subject to arbitration as hereinafter provided. If the Parties are unable to reach agreement as to Fair Market Rent within such thirty (30) day period, the Parties shall submit the dispute to arbitration. The arbitration shall be conducted and determined in Vancouver, Washington in accordance with the then prevailing rules of the American Arbitration Association or its successor for arbitration of real estate valuation disputes, except that the procedures mandated by such rules shall be modified as follows:

(1) Within ten (10) business days after expiration of the thirty (30) day period for mutual agreement on Fair Market Rent, Lessee shall notify Lessor of the name and address of the person to act as arbitrator on Lessee’s behalf. The arbitrator shall be a MAI certified real estate appraiser with at least ten (10) years full-time experience who is familiar with the Fair Market Rent of water accessible, heavy industrial land similar to the Premises in Vancouver, Washington. Within ten (10) business days after Lessee identifies in writing its arbitrator, Lessor shall give notice to Lessee specifying the name and address of the person designated by Lessor to act as arbitrator on Lessor’s behalf, which person shall be similarly qualified. If Lessor fails to notify Lessee of the appointment of Lessor’s arbitrator within the time specified, then the arbitrator appointed by Lessee shall be the arbitrator to determine the Fair Market Rent for the Premises.

(2) If two arbitrators are chosen, the arbitrators so chosen shall meet within ten (10) business days after the second arbitrator is appointed and shall appoint a neutral arbitrator who shall be a competent and impartial person with qualifications similar to those required of the first two arbitrators. If they are unable to agree upon such appointment within five (5) business days, the neutral arbitrator shall be selected by the presiding judge of the Clark County Superior Court.

(3) The Fair Market Rent shall be fixed by the three arbitrators in accordance with the following procedures. Each Party-appointed arbitrator shall state, in writing, such arbitrator's determination of the Fair Market Rent supported by the reasons therefor and shall make counterpart copies for the other Party-appointed arbitrator and the neutral arbitrator. The Party-appointed arbitrators shall arrange for a simultaneous exchange of their proposed Fair Market Rent determinations. The role of the neutral arbitrator shall be to select whichever of the two proposed determinations of Fair Market Rent most closely approximates the neutral arbitrator's own determination of Fair Market Rent. The neutral arbitrator shall have no right to propose a middle ground or any modification of either of the two proposed determinations of Fair Market Rent. The determination of Fair Market Rent that the neutral arbitrator chooses as that most closely approximating the neutral arbitrator's determination of the Fair Market Rent shall constitute the decision of the arbitrators and shall be final and binding upon the Parties. The arbitrators shall have no power to modify the provisions of this Lease.

(4) The neutral arbitrator's decision shall be made not later than thirty (30) days after the submission by the arbitrators of their proposals with respect to the Fair Market Rent. The Parties have included these time limits in order to expedite the proceeding, but they are not jurisdictional, and the neutral arbitrator may for good cause allow reasonable extensions or delays, which shall not affect the validity of the award. Absent fraud, collusion or willful misconduct by the neutral arbitrator, the award shall be final, and judgment may be entered in any court having jurisdiction thereof.

(5) Each Party shall pay the fees and expenses of its respective arbitrator and both Parties shall share the fees and expenses of the neutral arbitrator equally.

(6) The entire arbitration process, beginning after expiration of the thirty (30) day period for mutual agreement on Fair Market Rent, shall be completed in not more than sixty-five (65) days.

Notwithstanding the foregoing, in the event that the Parties have modified the terms of the MGA Agreement such that a mutually agreeable MGA (as defined in the MGA Agreement) has been established and

agreed upon for the entirety of the applicable Extension Term or Extension Terms, the Base Monthly Rent for such Extension Term or Extension Terms shall not be subject to such Fair Market Rent adjustment, but shall continue to be subject to annual rent adjustment in accordance with Paragraph 1.D.

H. This is intended to be a net lease, meaning that Lessee shall pay all expenses of every type relating to the Premises after the Conditions Precedent Expiration Date, and all Contingency Period Fees, Construction Period Fees, Rent and Additional Charges shall be received by Lessor without setoff, offset, abatement, or deduction of any kind except as provided herein. **Under no circumstances or conditions, whether now existing or hereafter arising or whether beyond the present contemplation of the Parties, shall Lessor be expected or required to make any payment of any kind whatsoever or be under any obligation or liability under the Lease except as expressly set forth in the Lease.**

5. **ADDITIONAL CHARGES:** Upon commencement of the Construction Period, Lessee shall timely make all payments owing by Lessee under this Lease in addition to either (as the case may be) the Construction Period Fees or Rent (“Additional Charges”), including but not limited to the following:

A. charges for all utilities and services furnished to the Premises and assessments for utilities and services furnished to the Premises. “Utilities” include, but are not limited to, water, natural gas, electricity, sewer and refuse disposal, storm water collection and treatment, garbage and recycling, trackage for Lessee’s exclusive use, and monthly inspection fees for any trackage for Lessee’s exclusive use. “Services” include, but are not limited to, landscaping, paving, parking lot striping, catch basin repair and maintenance, irrigation, security and fire protection and monitoring systems and all associated operation services. Lessee shall also pay for all charges for maintenance associated with the Premises. Lessor has the first right to supply any of such Utilities to Lessee and, if Lessor elects to do so, Lessee shall purchase and pay for the same as an Additional Charge at the same rate schedule charged other users in the Port; provided that such rate shall not exceed the rates available from other suppliers of the same utility in the Vancouver area. Payments for all Utilities provided by third parties shall be made by Lessee directly to such providers. If Lessor furnishes a utility to the Premises and such utility is not separately metered, then Lessor shall apportion the utility charges, and the charges associated therewith, on an equitable basis, in its reasonable discretion. In no event shall Lessor be liable for the interruption or failure in the supply of any Services or Utilities to the Premises, whether or not being furnished by Lessor, provided, however, that, in the case of

Utilities furnished by Lessor, Lessor shall use diligent efforts to restore such Services and/or Utilities as soon as reasonably possible.

B. any insurance premiums to be reimbursed by Lessee to Lessor pursuant to Paragraph 15.

C. a Rail Access Fee in the amount specified in Paragraph 1.F. This fee shall be billed to the Lessee each month and shall be calculated by the actual railcar traffic as reported by BNSF, Lessor's exclusive rail operator.

D. a Rail Maintenance Fee for the common rail system internal to the Port in an amount to be determined by Lessor's annual rail tariff. Lessee shall also be responsible for individual rail maintenance and repair expenses on all rail spurs and tracks used exclusively by Lessee.

E. as a component of Additional Charges, a monthly CAM (as defined below) fee during each calendar year, or portion thereof, during the term of this Lease. Lessee shall pay the amount stated in Paragraph 1.F, which amount is subject to adjustment as described in Paragraph 1.F. Any amount collected by Lessor that exceeds any given year's total CAM expenses will be deposited in a reserve account and used towards any following year's total CAM capital improvements. During the Term hereof, Lessor shall repair, maintain and keep the Common Areas in good order, repair and condition, including without limitation, utilities and roads (including roads and utility lines within the Premises which are not exclusively used by Lessee and which are not maintained by the utility service provider). Common Area Maintenance ("CAM") expenses shall include, but not be limited to, all costs and expenses incurred by Lessor for the management, administration, maintenance, upkeep, and operation of the Common Areas, including, but not limited to, the costs and expenses of water, natural gas, electricity, sewer and refuse disposal, storm water collection and treatment, garbage and recycling, landscaping, paving, parking lot striping, catch basin repair and maintenance, irrigation, fire protection and monitoring systems, fencing, storage area screenings, common lighting, signage, security shacks, security card access, security guards and services, Common Area liability insurance, and the cost of capital improvements made to comply with the law or to reduce future expenses and all charges associated therewith. Administration costs and expenses shall include but not be limited to maintaining records of CAM expenses.

F. any charges, costs, and expenses that Lessor pays or agrees to pay under this Lease, together with all interest and other charges that may accrue thereon in the event of the failure of Lessee to pay those items, and all

other damages, costs, expenses, and sums that Lessor may suffer or incur, or that may become due, by reason of any Default of Lessee under this Lease.

G. any charges, costs, and expenses that Lessee pays or agrees to pay under any other agreement with Lessor, including but not limited to the MGA Agreement and any berthing agreement and/or trackage agreement.

H. any and all rentals and charges due the State of Washington under the Port Management Agreement as such applies to the Premises and as required by the DNR.

6. **LEASE SECURITY:** Lessee shall, upon execution of this Lease, and prior to occupancy, file with Lessor a bond, letter of credit or cash in accordance with RCW 53.08.085, as amended. The terms and document of the security instrument shall be subject to the reasonable approval of Lessor, and shall extend for a period of sixty (60) days subsequent to the Term of this Lease. The initial amount of security shall be as set forth in Paragraph 1.G. In the event of an exercise of an option to renew as provided in Paragraph 3.B or the execution of an Amendment to the Lease, subsequent security amounts shall increase and readjust in proportion to any subsequent increase in Rent or as reasonably determined by the Port Commission. Additional security corresponding to such increase shall be filed with Lessor within thirty (30) days after the effective date of the increase in Rent and prior to cancellation of any bond or letter of credit issued pursuant to this Paragraph. Upon any Default by Lessee in its obligations under this Lease, Lessor may collect on the security to offset any liability of Lessee to Lessor. Collection on the security shall not relieve Lessee of liability, shall not limit any of Lessor's other remedies, and shall not reinstate or cure the Default or prevent termination of the Lease because of the Default.

If a guaranty is required by Paragraph 1.H in connection with an assignment of this Lease, the assignee's parent company shall execute a guaranty in the same form as that attached hereto as Exhibit "G".

7. **POSSESSION:** Lessee has examined the Premises and, by taking possession, accepts them "as is" in their present condition without obligation or liability on the part of Lessor, to make any Alterations, improvements, repairs or maintenance except to the extent set forth expressly herein with respect to Existing Environmental Conditions and to the extent, if any, specifically set forth in writing and included herein or as an exhibit attached to this Lease.

8. **USE OF PREMISES:**

A. Lessee shall occupy and use the Premises for the Permitted Use set forth in Paragraph 1.I and shall not use the Premises for any other purpose without the prior written consent of Lessor. Lessee shall use the entire

Premises for the Permitted Use continuously during the entire term of this Lease, commencing on the Rent Commencement Date, except for: (i) periods of time (not exceeding twelve (12) months) that Lessee is prevented from using the Premises due to Force Majeure or damage or destruction of improvements, so long as following any damage or destruction, Lessee is using diligent efforts to make repairs or restoration of such improvements; or (ii) temporary closures (not exceeding thirty (30) days) as may be necessary for repairs or remodeling or for reasons beyond Lessee's control. Should Lessee use, or permit or suffer the use of, the Premises for any business or purpose other than the Permitted Use without the prior written consent of Lessor, except for temporary closures permitted by this Lease, Lessee shall be deemed in Default under the terms of this Lease. Except for Petroleum Products and those Hazardous Substances listed in Exhibit "H" (as the list may be modified during the Term through the new product approval process described in Exhibit "I"), it is further understood and agreed that the Premises shall not be used to store, distribute or otherwise handle flammable or Hazardous Substances.

B. Lessee agrees that it will not make or permit any unusual disturbance, noise, vibration, dust or other condition in, on or about the Premises, which would tend to create a Nuisance or unreasonably disturb Lessor or any other tenant of Lessor.

C. Lessee shall not use the Premises in such a manner as to increase the rates of insurance to the Premises or adjacent premises, without prior written approval of Lessor, and if permitted, Lessor may charge to Lessee as additional charges the full amount of any resulting premium increases incurred by Lessor or any of its adjacent tenants.

D. No invasive testing (except to the extent expressly approved by Lessor in conjunction with the Baseline Assessment and any approved geotechnical testing) or construction activities shall be conducted at the Premises during the Contingency Period.

E. During the MGA Term, so long as Lessee has, by the date that is [REDACTED] full months following the Rent Commencement Date (measured, at such time, based on a rolling 6-month average commencing on the second anniversary of the Rent Commencement Date), and each month thereafter, based on a rolling 6-month average, achieved and sustained an average throughput volume of [REDACTED] barrels per day of Petroleum Products (such period of time during the MGA Term with sustained throughput over [REDACTED] [REDACTED] being referred to herein as the "Exclusive Period"), Lessor agrees not to lease any premises (other than the Premises that are subject to this Lease) located within the Port to a third party that will be permitted (directly or

indirectly) to operate a crude oil by Rail Facility for Unit Trains (the “Exclusive Use”), it being the intention of the Parties that Lessee shall during the Exclusive Period have the exclusive right in the Port to operate and conduct on the Premises a business for the Exclusive Use. If, thereafter, Lessee fails to maintain such throughput volume for a period of twelve (12) months or longer, the Exclusive Period and the right of first opportunity with respect to the Second PBR Facility (defined below) shall automatically terminate, and the Exclusive Use shall be of no further force and effect.

If the Facility achieves an average throughput volume that exceeds [REDACTED] barrels per day (measured on a rolling 12-month basis), and Lessor desires to develop another facility for the Exclusive Use (the “Second PBR Facility”), then Lessee shall have a right of first opportunity to lease additional real property from Lessor for the Second PBR Facility, either by (a) expanding the Premises and thereby adding additional throughput capacity, or (b) adding a facility at the Port that is separate from the Premises. If Lessee achieves an average throughput volume that exceeds [REDACTED] barrels per day (measured on a rolling 12-month basis) and Lessor desires to develop a Second PBR Facility, then Lessor shall give written notice to Lessee indicating the same, and Lessee shall have thirty (30) days following receipt of such written notice to accept or decline to enter into negotiations for the Second PBR Facility (the “Exercise Date”). If Lessee timely elects to enter into such negotiations, then Lessor and Lessee shall negotiate diligently and in good faith to reach and enter into a definitive agreement governing the development of the Second PBR Facility. If the Parties are unable to enter into such a definitive agreement within six (6) months following the Exercise Date, or if Lessee elected not to exercise its right of first opportunity (or failed to timely do so), then and only then shall Lessor be permitted to commence negotiations with third parties concerning the Second PBR Facility, and such Second PBR Facility will not be subject to the Exclusive Use. If Lessee has elected not to exercise its right of first opportunity (or failed to timely do so) at any point during the Lease Term, the right of first opportunity shall automatically terminate and be of no further force and effect for the balance of the Lease Term.

In the event that Lessor suffers or permits any use of the Port that is in violation of Lessee’s Exclusive Use during a period in which Lessee has achieved and maintained an average throughput volume of [REDACTED] [REDACTED] barrels per day of crude oil (measured on a rolling 12-month basis), Lessee shall be entitled to all remedies at law or in equity, including, should such violation remain for a period of twelve (12) months or longer in duration, the right to terminate this Lease with reservation of Lessee’s remedies at law or at equity.

A portion of the Premises is owned by the DNR and is subject to the Port Management Agreement. Lessee shall be responsible throughout the Term to comply with the terms of the Port Management Agreement insofar as it applies to the Premises.

9. **WATERBORNE COMMODITIES; OPERATIONS AT MARINE TERMINAL AREA:** If applicable, Lessee agrees that throughout the Term of this Lease it will use commercially reasonable efforts, in conjunction with Lessor, to promote and aid the movement of cargo through the Port. Lessee further agrees that movements of Lessee's waterborne commodities, if any, shall be made through Lessor's port facilities if such routing is competitive with other ports.

B. The portion of the Premises described as the "Marine Terminal Area" includes Berths 13 and 14 in Terminal 4 (collectively, the "Berth"). Lessee shall have exclusive use of the Berth, as shown on Exhibit "B-1"/ "B-2" attached hereto, together with the nonexclusive rights of vehicular ingress and egress over and across those areas of the Port designated for driveway usage between the Berth and the balance of the Premises. Lessee shall use the Berth and the Marine Terminal Area solely in conjunction with the operation of the Facility for loading and unloading of Petroleum Products. The use of the Berth is subject to the following terms, conditions and requirements:

(1) Lessee shall be solely responsible for all capital improvements, replacement, maintenance and repair of the docks located in the Berth area, all at Lessee's sole expense.

(2) Lessor shall, at Lessor's sole cost and expense, perform all dredging necessary to provide continuous, safe access to the Berth and the dock located in the Berth area, and shall maintain the Berth's established depth to be the same as or deeper than the federal navigation channel depth plus two feet (2') for vessel under keel clearance.

If at any time during the Term, Lessee conducts or causes to be conducted a hydrographic survey of the Berth, and such survey reveals that the depth of the Berth has not been maintained in accordance with the preceding Paragraph 9.B(2), then Lessor shall, within ninety (90) days after the date on which such hydrographic survey is provided to Lessor, cause dredging to be completed to the required depth at Lessor's sole cost and expense; provided, however, that the period provided for Lessor to complete the dredging shall be extended if, during such 90-day period, dredging is prohibited either by the Army Corps of Engineers or the Washington State Department of Natural Resources.

(3) Lessee or its agent shall be the sole arbiter with respect to vessels having the right to tie up to the dock whether working cargo or idle. Notwithstanding the foregoing, Lessee shall allow vessels to dock under emergency conditions, provided that Lessee may require such vessel to vacate the Berth at the earliest possible time.

(4) Lessor retains the right to permit or refuse cargoes, other than Petroleum Products which have been approved in accordance with the requirements of this Lease, vessel stores (food and supply products) and fuel necessary for the operation of vessels. Permission for Lessee to handle any such other cargo may be granted or withheld by Lessor in Lessor's sole and absolute discretion, and shall be granted in writing (if at all) prior to the handling, transshipping, loading, unloading, storage or other presence of such other cargo at the Berth. Lessor shall not be liable to Lessee or any third party for any loss, damage, claim or liability arising from Lessor's failure to permit any such other cargo. Any other cargo so approved shall be subject to Lessor's terminal tariff.

(5) Lessee shall prepare and submit to Lessor timely reports including: (i) vessel schedules, (ii) vessel length overall and gross registered tons, (iii) time at berth, (iv) amount of product handled in barrels, and (v) such other information as may be reasonably required for Lessor's prudent and safe operation of the Port. Lessee considers the quantities of specific types of Petroleum Products, and the bills of lading relating thereto, to constitute a trade secret, as defined in RCW 19.108.010(4). Except to the extent reasonably determined by Lessor to be required by law to be disclosed by Lessor (including, without limitation, pursuant to the Washington Public Records Act), Lessor agrees to maintain the confidentiality of such information; provided, however, that Lessor shall provide reasonable notice to Lessee of any request for information that Lessor is required by law to disclose so that Lessee may seek legal protection for the information, and Lessor shall cooperate with Lessee in Lessee's efforts to prevent disclosure of such information. If Lessee is unable to obtain such protection, Lessor may disclose the information, but only to the extent required by law. The Parties agree to share information reasonably related to the performance of this Agreement, excluding trade secrets and such other proprietary information that is confidential, and to cooperate reasonably with all contractors, entities and other persons associated with such activities as permitting and repair work at the Berth.

(6) Lessor shall have the right to audit all of Lessee's reports of tonnage for Petroleum Products transported through the Berth.

(7) Lessor reserves to itself a right of access and/or easement upon, over, across and beneath the Berth for access, subject to Lessee's security processes, together with the right to grant, to third parties, utility easements upon, over, across, and beneath the Berth, provided that such easements do not interrupt or materially interfere with Lessee's operations pursuant to this Lease.

(8) Lessee shall operate the Berth in a prudent manner in accordance with all statutes, ordinances, and applicable regulations in effect, including but not limited to rules and regulations promulgated by the U.S. Coast Guard. Lessor shall not impose rules or regulations relating to the operation of the Berth that would have the effect of interrupting or materially interfering with Lessee's safe operation of the Berth.

(9) Terminal tariff fees invoiced to the vessel shall be paid to and collected by Lessor from the vessel or its agents. Lessor shall receive all dockage, vessel security fees and MFSA safety fees, per Lessor's terminal tariff; to the extent that Lessee receives such fees from any vessel, Lessee shall promptly remit such fees to Lessor.

10. **GENERAL COMPLIANCE WITH ALL LAWS:** In its use of the Premises, Lessee agrees to comply with all applicable federal, state and municipal laws, ordinances and regulations and Lessor shall have the right to review all related documents. In the event Lessor requires copies of any such documents, Lessee will be reimbursed for any associated reasonable costs. Lessor's right to review Lessee's documents does not imply that Lessor has accepted any responsibility for accuracy, completeness, or legal compliance. Lessee shall pay any fees for any federal, state or municipal inspections and/or certificates required for use and occupancy of the Premises. Further, Lessee shall pay all licenses, fees, and taxes covering the business conducted on the Premises, together with all taxes and assessments on the property of Lessee on the Premises. Lessee shall notify Lessor of any violation of any local, state, and federal laws, ordinances, regulations, permits, plans, and approvals.

11. **PRESENCE AND USE OF HAZARDOUS SUBSTANCES:**

A. **Use, Storage, and Disposal:** Except as expressly permitted by the terms of Paragraph 8.A above, Lessee shall not use, transport, store, treat, generate, sell or dispose of any Petroleum Products or Hazardous Substances on or in any manner that affects the Premises, Pipeline Agreement areas, or surrounding properties. "Affects the Premises, Pipeline Agreement areas, or surrounding properties" shall include but not be limited to allowing any Petroleum Products or Hazardous Substances to migrate off the Premises or Pipeline Agreement areas,

or the Release of any Petroleum Products or Hazardous Substances into adjacent surface waters, soils, sediments, groundwater or air.

B. **Deed Restricted Areas:** As set forth in Paragraph 2.C, the Parties acknowledge that portions of the Premises and portions of the areas to which Lessee may be granted an easement pursuant to a Pipeline Agreement are the subject of the Consent Decree and subject to the Restrictive Covenants, and that construction on such areas may require disturbing the environmental caps and may generate soil or groundwater contaminated with Hazardous Substances that will require special handling and disposal. Lessor and Lessee understand that disturbance or removal of portions of the environmental caps is required for pre-occupancy construction and pre-occupancy tenant improvements for Lessee's Permitted Use and such removal or disturbance of a cap requires prior approval by the Washington Department of Ecology. Lessor, with Lessee's cooperation (which shall include, without limitation, Lessee's presentation of a reasonable design which is consistent with the Consent Decree and Restrictive Covenants, as well as the other terms and conditions of this Lease), will obtain approval from the Washington Department of Ecology that will allow Lessor or Lessee to modify the cap for: (i) Baseline Assessment and geotechnical testing, (ii) pre-occupancy construction, (iii) pre-occupancy tenant improvements, and (iv) the Permitted Use of the Premises under this Lease. Without limiting Lessor's responsibility for Existing Environmental Conditions, Lessor will be responsible for characterization and proper disposal (in compliance with Environmental Laws and as required by the Washington Department of Ecology) of contaminated media generated in connection with the pre-occupancy construction necessary for Lessee's Permitted Use. Lessor's obligation shall not extend to any new Releases of Petroleum Products or Hazardous Substances to the extent such Petroleum Products or Hazardous Substances are first brought onto the Premises by Lessee or Lessee's employees, contractors or agents during the Term of the Lease. Lessor represents and warrants to Lessee that there are monitoring wells on the Premises in the locations described on Exhibit "Q" attached hereto. To the extent that such monitoring wells are described on Exhibit "Q," and such monitoring wells are required to be relocated, then Lessee will be solely responsible for costs associated with all monitoring well relocation required in conjunction with Lessee's development of the Facility and Permitted Use of the Premises; to the extent that such monitoring wells are not described on Exhibit "Q" and are required to be relocated, the costs associated with such monitoring well relocation shall be borne by Lessor.

C. **Compliance with Environmental Laws:** Lessee shall, at its sole cost and expense, comply with all Environmental Laws, including but not limited to all permits applicable to the Premises and issued to Lessee. Pursuant to this Paragraph 11.C, Lessee shall, at its sole cost and expense, comply with the terms of the National Pollutant Discharge Elimination System (“NPDES”) Western Washington Phase II Municipal Stormwater Permit issued to Lessor and any other applicable permit covering stormwater or other discharges from the Premises. Lessee agrees to comply with the requirements of Lessor’s Stormwater Management Program (“SWMP”) and Illicit Discharge Detection and Elimination policy (“IDDE”) as required by the NPDES Western Washington Phase II Municipal Stormwater Permit. Lessor agrees to make the NPDES permit, SWMP, and IDDE available to Lessee on the Lessor’s website.

D. **Environmental Audits:** The Port of Vancouver environmental department conducts periodic environmental audits of leased premises. These environmental audits do NOT imply compliance with state or federal regulations. Lessee agrees to cooperate with the Port’s environmental department in its conducting environmental audits of the Premises and Pipeline Agreement areas and to comply with the Port’s requests made pursuant to the environmental audit results for the Premises and Pipeline Agreement areas. In addition, Lessee shall provide an updated Tenant Environmental Questionnaire at Lessor’s request.

E. **Monitoring:** Lessor or its designated agents may, at Lessor’s sole discretion and at reasonable times, enter upon the Premises for the purpose of (1) monitoring Lessee’s activities conducted thereon, and (2) conducting environmental testing and sampling to determine compliance with Environmental Laws and the terms of this Lease; provided Lessor shall not unreasonably interfere with the conduct of Lessee’s business. If such monitoring discloses a Release of Petroleum Products or Hazardous Substances (except to the extent caused by Lessor, its employees, agents, or contractors, or by any other tenant of Lessor or by a railroad serving the Port that is not carrying Petroleum Products for Lessee or the Facility), a violation by Lessee of Environmental Laws or a Default by Lessee of its obligations under this Lease, the cost of such monitoring, testing and sampling shall be paid by Lessee. In addition, within five (5) days of Lessor’s written request, Lessee shall provide Lessor with a detailed written description of Lessee’s generation, use, sale, transportation, storage, treatment and disposal of Petroleum Products or Hazardous Substances on or which may otherwise affect the Premises, Pipeline Agreement areas, or the surrounding properties. Lessor’s discretionary actions pursuant to this subparagraph shall not substitute for any

obligation of Lessee hereunder, or constitute a release, waiver or modification of Lessee's obligations otherwise specified in this Lease.

F. **Notifications:** Lessee shall notify Lessor of the presence or Release of Hazardous Substances or the Release of Petroleum Products on or that may affect the Premises, Pipeline Agreement areas, or the surrounding properties immediately following a Release caused by Lessee, its employees, agents, or contractors, or upon Lessee's discovery of a Release caused by Lessor, its employees, agents, or contractors, by any other tenant of Lessor, or by a railroad serving the Port that is not carrying Petroleum Products for Lessee or the Facility, or of the presence of such Hazardous Substances (other than Permitted Hazardous Substances). Lessee shall provide Lessor with the following documentation:

(1) copies of any notifications submitted by Lessee to any governmental entity relating to the Release or presence of Hazardous Substances or Release of Petroleum Products on the Premises or Pipeline Agreement areas at the same time they are submitted to the appropriate governmental authorities;

(2) any inspection report, complaint, order, fine, request, notice, or other correspondence from any entity, pursuant to any Environmental Law, that may affect the Premises, Pipeline Agreement area, or the surrounding properties, within ten (10) days of receiving such documentation;

(3) all reports, manifests, material safety data sheets ("MSDS"), or any other documentation related to Lessee's compliance with Environmental Laws at the Premises, upon written request by the Port.

G. **Environmental Assessment:** Lessee shall, upon written request from Lessor made at any time during the Term of this Lease or within sixty (60) days thereafter, based on a sufficient reason to believe there has been a Release of Petroleum Products or Hazardous Substances other than by Lessor, its employees, agents or contractors, by any other tenant of Lessor or by a railroad serving the Port that is not carrying Petroleum Products for Lessee or the Facility, or violation by Lessee of Environmental Laws, provide Lessor with an environmental assessment prepared by a qualified professional mutually agreed upon by Lessor and Lessee, which assent shall not be unreasonably withheld. In the event of refusal by Lessee to assent within twenty-four (24) hours of an emergency or within seven (7) days of a non-emergency, Lessor shall unilaterally select the qualified professional to perform said assessment. The environmental assessment shall, at a minimum, (1) certify that a diligent investigation of the Premises and Pipeline Agreement areas has been conducted, including a specific description of the work performed, and (2) either (a) certify that diligent investigation of the Premises and Pipeline Agreement areas has

revealed no evidence of a Release of Petroleum Products or Hazardous Substances or violation of Environmental Laws, or (b) if a Release or violation of Environmental Laws is detected, identify and describe: (i) the types and levels of Petroleum Products or Hazardous Substances detected; (ii) the physical boundaries of any actual Release, including property other than the Premises; (iii) to the extent determinable, the person or parties that caused the Release; (iv) the actual and potential risks to the environment from such Release or violation; and (v) the procedures and actions necessary to remedy the Release or violation in compliance with Environmental Laws. If such environmental assessment discloses a Release of Petroleum Products or Hazardous Substances that is caused, at least in part, by Lessee, its employees, agents or contractors, a violation by Lessee of Environmental Laws or a Default by Lessee of its obligations under this Lease, Lessee shall pay the expense of obtaining the environmental assessment.

H. **Hold Harmless and Indemnity:** Lessee shall defend (with attorneys approved in advance and in writing by Lessor), indemnify and hold Lessor and its agents harmless from any damages, loss, claim, fine or penalty arising from (i) the Release of Petroleum Products or Hazardous Substances that is caused, at least in part, by Lessee, its employees, agents or contractors, whether or not within the Premises, (ii) any violation of Environmental Laws, (iii) a default by Lessee of the provisions of this Paragraph 11, or (iv) any exacerbation of Existing Environmental Conditions affecting the Premises, Pipeline Agreement areas, or the surrounding properties, to the extent caused by Lessee or by Lessee's employees, contractors or agents. Such obligation shall include, but shall not be limited to, environmental response and remedial costs, other cleanup costs and charges, environmental consultants' fees, attorneys' fees, civil and criminal fines and penalties, laboratory testing fees, claims by third parties and governmental authorities for death, personal injuries, property damage, business disruption, Lessor's lost business and sales, natural resource damages and any other costs, and Lessor's expenses as provided in subparagraph 11.G. Lessee's obligations pursuant to this subparagraph shall survive expiration or other termination of this Lease.

Lessor shall defend (with attorneys approved in advance and in writing by Lessee), indemnify and hold Lessee and its agents harmless from any damages, loss, claim, fine or penalty arising from (i) the Existing Environmental Conditions, or (ii) a violation of Environmental Laws to the extent caused by Lessor or by Lessor's employees, contractors or agents. Such obligation shall include, but shall not be limited to, environmental response and remedial costs, other cleanup costs, environmental consultants' fees, attorneys' fees, fines and penalties,

laboratory testing fees, claims by third parties and governmental authorities for death, personal injuries, property damage, business disruption, lost profits, natural resource damages and any other costs. Lessor's obligations pursuant to this subparagraph shall survive expiration or other termination of this Lease.

I. **Assignments and Subleases:** Lessor may withhold its consent to any assignment, sublease, or other transfer if the proposed transferee's use of the Premises may involve the use, transportation, storage, treatment, generation, sale or disposal of Petroleum Products or Hazardous Substances (other than Permitted Hazardous Substances).

J. **Lessor's Remedies:** Notwithstanding any other provision of this Lease, and without prejudice to any other right or remedy available to Lessor at law, in equity or under this Lease, Lessor, in the event of a Release of Hazardous Substances not caused solely by Lessor, a violation by Lessee of Environmental Laws, or a Default by Lessee of the provisions of this Paragraph 11, shall be entitled to any or all of the following rights and remedies, at Lessor's option:

(1) To terminate this Lease if Lessee has failed, following a Release that is caused, at least in part, by Lessee, its employees, agents or contractors, a violation by Lessee of Environmental Laws, or a Default by Lessee of the provisions of this Paragraph 11, to diligently and timely take such actions as are required (a) by any governmental agency having jurisdiction to remediate the Release (or cause the remediation by the party responsible therefore), (b) by any governmental agency having jurisdiction to cure the violation of Environmental Laws, or (c) to remedy the Default of the provisions of this Paragraph 11 by responding in accordance with the requirements of this Lease.

(2) To recover damages as described in, and to be indemnified as provided in, subparagraph H.

(3) If Lessee has failed to act diligently and to Lessor's satisfaction, to enter upon the Premises and cure any such Release, violation or Default, and, to the extent such Release is not caused by Lessor, its employees, agents or contractors, by any other tenant of Lessor, or by a railroad serving the Port that is not carrying Petroleum Products for Lessee or the Facility, either (i) charge to Lessee as Additional Charges an amount sufficient to recover the cost of such cure, together with interest thereon at the Interest Rate, or (ii) if Lessor does not elect to terminate this Lease, increase Rent by such amount as will permit Lessor to fully recover the cost of such cure, together with interest thereon at the Interest Rate, during such portion of the unexpired Term of this Lease as Lessor

may deem proper. Such election by Lessor shall be without prejudice to any other right or remedy provided to Lessor at law, in equity or in this Lease.

The remedy provisions provided in Subsections (1), (2) and (3) above shall not apply to the Rail/Rack and Pipeline Agreement areas defined above in paragraph I.I., except to the extent caused by Lessee, its employees, agents or contractors.

K. EPA Identification Number: Lessee shall also provide to Lessor Lessee's Environmental Protection Agency Identification Number to dispose of Hazardous Substances if Lessee has one. Lessee shall also provide to Lessor copies of all of Lessee's disposal manifests.

L. Vacation of the Premises: Prior to vacation of the Premises, in addition to all other requirements under this Lease, Lessee shall remove any Petroleum Products or Hazardous Substances placed on the Premises during the term of this Lease or Lessee's possession of the Premises, and shall demonstrate such removal to the Port's satisfaction. This removal and demonstration shall be a condition precedent to the Port's payment of any Lease security to Lessee upon termination or expiration of this Lease. As a component of Lessee's requirements under this paragraph, Lessee agrees to cooperate with the Port's environmental department in conducting an environmental exit audit of the Premises and Pipeline Agreement areas and to comply with the Port's requests made pursuant to the environmental exit audit results.

M. Exit Contamination Assessment:

(1) Prior to vacation of the Premises upon the expiration or earlier termination of this Lease, without limitation of other applicable requirements under this Lease, Lessee will have an environmental assessment conducted on the Premises and Pipeline Agreement areas by an independent, reputable professional environmental consultant reasonably approved by Lessor to assess the presence of contamination on the Premises and Pipeline Agreement areas as of the termination of this Lease to compare its condition at that time with the condition established by the Baseline Assessment (such assessment, the "Exit Contamination Assessment").

(2) The scope of work for the Exit Contamination Assessment shall be timely, and in any event within 20 days of Lessee's notice to Lessor of the identity of the consultant and the proposed scope of work, reviewed and approved by Lessor, acting reasonably, prior to its initiation and it shall be intended to address whether there have been (a) Releases on the Premises or Pipeline Agreement areas, (b) violations of Environmental Laws in Lessee's or its Related Parties' use or occupancy of the Premises and Pipeline Agreement areas, or

(c) exacerbation of Existing Environmental Conditions, which were caused or suffered by Lessee or its Related Parties after the Effective Date.

(3) If the Exit Contamination Assessment reveals: (a) Releases on the Premises or Pipeline Agreement areas that materially worsen the condition of the Premises or Pipeline Agreement areas when compared to Existing Environmental Conditions; (b) violations of Environmental Laws in Lessee's or its Related Parties' use or occupancy of the Premises or Pipeline Agreement areas; or (c) exacerbation of Existing Environmental Conditions that materially worsens the condition of the Premises when compared to Existing Environmental Conditions; and provided and to the extent that such Releases, violations or exacerbation were caused or suffered, in whole or in part, by Lessee or its Related Parties after the Effective Date of this Lease, then Lessee shall be responsible to remediate or clean up the Premises and Pipeline Agreement areas to the extent caused or suffered by Lessee or any Related Party, such that the Premises and Pipeline Agreement areas, from an environmental condition perspective, are in the same condition upon termination of this Lease and Lessee's surrender of the Premises and Pipeline Agreement areas, as when the Premises and Pipeline Agreement areas were delivered to Lessee (with the exception of, and to the extent of, any conditions caused by Lessor, its employees, agents or contractors, by any other tenant of Lessor or by a railroad serving the Port that is not carrying Petroleum Products for Lessee or the Facility). Except to the extent of any exacerbation, Lessee shall have no obligation to remediate or clean up any Existing Environmental Conditions.

(4) Lessor reserves the right to conduct its own exit contamination assessment of the Premises and Pipeline Agreement areas at Lessor's expense.

12. RESERVATIONS BY LESSOR:

A. Lessor reserves to itself a right and easement (and the right to grant easements to third parties, including utility providers) upon, over and beneath the Premises for the construction, maintenance, repair and replacement of roadways, non-exclusive railroad tracks and all surface, overhead or underground utilities to include, but not be limited to, storm water treatment devices and/or structures, provided that Lessor's activities do not unreasonably interfere with Lessee's Permitted Use. Lessee shall, upon reasonable notice from Lessor, provide access to areas identified by Lessor for these purposes, including but not limited to removing any obstructions (other than permanent structures which have been installed with the approval of Lessor) from these areas. This reservation includes the responsibility of Lessor to repair any physical damage done to the Premises incidental to the exercise of

its rights under this reservation. Lessor shall make reasonable efforts to cooperate with Lessee in the exercise of Lessor's rights under this Paragraph 12.A and, to the extent possible, shall schedule any non-emergency work in advance.

B. Lessor reserves the right to enter upon and inspect the Premises at any and all reasonable times during the Term of this Lease, and during the last six (6) months of the Term (or any applicable Extension Term) to show the Premises to prospective tenants or purchasers. Any such inspection shall be conducted in such a manner as not to unduly interfere with Lessee's operations. The right of inspection shall not impose any obligation on Lessor to do so, nor shall Lessor incur any liability for not making inspections. During the last six (6) months of the Term, or any applicable Extension Term thereof, Lessor may place upon the Premises the usual "for rent," "for lease," and "available" notices advertising the availability of the Premises for lease which notices Lessee shall permit to remain thereon without molestation. Prior to vacation of the Premises, Lessee agrees to cooperate with Lessor's facilities department in conducting an exit audit of the Premises and to comply with Lessor's reasonable requests made pursuant to the exit audit results.

C. Lessor reserves the right for Lessor and Lessor's agents to enter upon the Premises to conduct any remedial action, monitoring, audit, and investigation, including but not limited to soil and sediments tests, groundwater tests, cap inspections, well drilling and well relocation that may be required for any purpose. Lessee shall, upon reasonable notice from Lessor, provide access to areas identified by Lessor for these purposes, including but not limited to removing any obstructions from these areas. Notwithstanding of the foregoing, (i) Lessor shall use reasonable efforts to minimize interference with Lessee's business and operations on the Premises (including the scheduling of any non-emergency work in advance), and (ii) Lessee shall not be required to move, demolish or alter any building or other improvements located on the Premises for which Lessor has provided its written consent to facilitate Lessor's actions under this Paragraph 12.C, unless the need to conduct any remedial action, monitoring, audit, and investigation is caused by Lessee's operations or is required by the Consent Decree or other applicable law or regulation.

D. Except to the extent, if any, otherwise expressly provided in this Lease, Lessor reserves to itself any water rights that may be appurtenant to or required for the Premises or for any business or other activities thereon, and such water rights will belong to Lessor upon expiration or termination of the Lease. Lessee shall not submit any application for water rights with respect to wells in the Port, without first obtaining Lessor's prior written

consent. If Lessee acquires any interest in water rights with respect to wells in the Port, Lessee shall not seek to convey, assign, encumber or otherwise transfer such interest apart from this Lease.

13. MAINTENANCE AND REPAIR:

A. Lessee shall, at its sole cost and expense, take or cause to be taken good care of the Premises and the Alterations during the Term of this Lease, it being understood that Lessor shall not be required to make any repairs to the Premises or the Alterations during the Term hereof, except to the extent of any damage to improvements, Alterations or fixtures located on the Premises which is caused by Lessor's employees, agents or contractors, or for which Lessor is expressly responsible under the terms of this Lease. Without limiting the generality of the foregoing sentence, Lessee agrees to maintain, repair and replace the Alterations, all sidewalks, vaults, sidewalk hoists, roads and curbs on the Premises (including keeping the same free and clear of rubbish, ice and snow), and all water, sewer, and gas connections, pipes, and mains which service the Premises shall comply with all applicable laws with respect thereto. Lessee's obligation to maintain all water, sewer, and gas connections, pipes, and mains shall apply to, but not be limited to, water lines and faucets within the Premises, sanitary sewer and drain lines extending to the sewer/septic connections, and all plumbing fixtures. Lessee is responsible for any discharge that damages or fouls the septic tank, sewer, or drain line systems serving the Premises. If the Premises' sanitary system includes a holding tank or is served by a septic system, Lessor will conduct an annual inspection and complete any necessary maintenance and pumping. Lessee is responsible for any maintenance expenses resulting from the annual inspection and shall remit payment to Lessor within thirty (30) days of the date of invoice. At the end or other termination of this Lease, Lessee shall deliver to Lessor the Premises with all Alterations thereon in good repair and condition, ordinary wear and tear, depreciation, and casualty and condemnation loss being excepted (provided that the foregoing shall not abrogate Lessee's obligations under Paragraphs 14.1 and 28 hereof).

B. Lessee shall, at its sole cost and expense, take good care of the Premises, make all repairs and replacements thereto, interior and exterior, structural and non-structural, ordinary and extraordinary, foreseen and unforeseen, and shall maintain and keep the Premises in first class condition and in good order and repair, and Lessor shall not be responsible for the foregoing. Lessee shall indemnify, defend, protect and hold Lessor harmless of and from any and all claims or demands: (i) upon or arising out of the failure of Lessee to perform the covenant contained herein, or (ii) arising out of any accident, injury or damage to any person or property which shall or may happen in or upon the Premises or any part thereof, or upon the sidewalks about the Premises, except to the extent

such accident, injury or damage is caused by Lessor, its employees, agents, or contractors. Lessee shall keep the Premises free and clear of any and all mechanics' liens or other similar liens or charges incidental to work done or material supplied in or about the Premises.

C. If Lessor is required to make any repairs to the Premises by reason of Lessee's negligent acts or omission to act or failure to perform its obligations under this Lease, then Lessor may add the cost of such repairs plus a fifteen percent (15%) administrative fee as an Additional Charge next owing from Lessee, which cost shall become due upon billing by Lessor.

D. In the event of damage or destruction to the Premises required by the terms of this Lease to be covered by insurance, or which happens to be covered by insurance maintained by either Party, the provisions of this Paragraph 13 shall not apply and the obligations of the Parties shall be controlled by Paragraph 17 of this Lease.

14. ALTERATIONS:

A. Lessee shall not make any Alterations to the Premises (other than those described conceptually on Exhibit "D" to the extent subsequently approved by Lessor for actual construction) without the prior written consent of Lessor having first been obtained; provided, however, that in the event that the Alteration is an immaterial, insubstantial or ordinary non-structural repair or replacement that does not require a permit and that clearly and convincingly will not affect or impact (i) the terms of the Restrictive Covenants or the Consent Decree, (ii) adjacent tenants or property owners, or (iii) any other obligations of Lessee under this Lease, Lessor's consent shall not be required.

B. Lessee shall, prior to making any Alteration that requires Lessor's consent under Paragraph 14.A, submit to Lessor the plans and specifications for such Alteration and obtain Lessor's prior written approval, such approval not to be unreasonably withheld so long as it does not affect, alter, or expand the Permitted Use. All Alterations shall be substantially in accordance with the plans, specifications, and elevations approved in writing by Lessor in advance thereof and shall be completed with all reasonable dispatch. No Alterations shall interfere with any easements and/or utilities.

C. In order to facilitate coordination of the development and construction of any approved Alterations and to provide for efficient communications between the Parties in the day-to-day implementation of certain other provisions of this Agreement, the Parties shall form a project team (the "Project Team") consisting of at least two (2) members appointed by Lessor and two (2) members appointed by Lessee. As of the Effective Date, Curtis Shuck

and Monty Edberg shall be Lessor's Project Team members, and Rick Weyen and Kent Avery shall be Lessee's Project Team members. At any time during the Term that Alterations are being designed, developed, or implemented, the Project Team shall meet on a weekly basis, including by teleconference as appropriate under the circumstances, or such other frequency as the Parties may agree to in writing, to keep one another apprised of the progress of the applicable Alterations, so as to minimize disruptions or delay in the completion of such Alterations and the other terms and conditions of this Agreement. Such coordination should include coordinated scheduling (including the review and recommendations for modifications thereof) of the timing and location of the applicable Alterations or activities to be performed on or about the Premises in order to effectuate the intent of this Paragraph.

D. Lessee warrants that any Alterations, whether done with or without Lessor's consent, shall be completed lien-free and in a good and workmanlike manner with new materials; will be performed in complete compliance with local, state and federal building, fire and other codes and construction guidelines, including but not limited to the Americans with Disabilities Act, if applicable, and all other applicable covenants, terms and conditions hereof (and proof of such compliance shall be provided to Lessor); and that all workmanship and materials shall be free from defects, and that all fixtures erected or installed by Lessee shall be new or completely reconditioned. Proof of compliance shall include providing to Lessor copies of certificates and permits issued by local, state and federal building, fire and other code and construction agencies. Further, Lessee shall provide Lessor with updated "as-built" drawings. Lessee may deliver said drawings to Lessor electronically or on disk, and a hard copy shall also be provided.

E. No electrical wiring, communications (including telephonic), or other electrical apparatus, including air conditioning equipment, shall be installed, maintained or operated on said Premises except with the approval of, and in a manner satisfactory to Lessor. In no event shall Lessee overload the electric circuits from which Lessee obtains current. Any additional air conditioning required as a result of heat generating equipment, special lighting or other equipment installed by Lessee shall be installed and operated, only with Lessor's prior written approval, at Lessee's sole expense.

F. Lessee shall be required to provide lien releases to Lessor from contractors and other individuals performing work on the Premises for Lessee promptly following the completion of such work. Lessee will notify Lessor in advance of intended work on the Premises, obtain any required approval from Lessor and all applicable

governmental bodies, and, if required by Lessor, will provide Lessor with financial assurances or bonding, as required by Lessor. Lessor shall be entitled to post notices of non-responsibility on the Premises.

G. Any sign, decoration, awning or canopy, or advertising matter to be installed by Lessee shall comply with all regulation requirements of the State of Washington, Clark County or City of Vancouver (or any other appropriate governmental agency). In addition Lessee shall not install any sign, decoration, awning or canopy, or advertising matter without prior written approval by Lessor. Lessee shall submit a written and graphic description of the proposed sign, decoration, awning or canopy, or advertising matter to Lessor in requesting approval and shall be responsible for obtaining any permits required for such installation.

H. Lessor will respond to all written requests for approval of proposed Alterations within thirty (30) days of the receipt of Lessee's request accompanied by plans and specifications for any such proposed Alterations. Lessee shall be responsible to pay any of Lessor's out-of-pocket expenses related to review and approval of any proposed Alterations. However, in the event the proposed Alterations are so complex or involved that thirty (30) days is inadequate for the appropriate review, Lessor shall have such additional time as is reasonable. Lessee acknowledges that Port Commission approval may also be required and that Lessor shall have reasonable additional time to obtain said approval.

I. All Alterations and improvements made by Lessee shall become the property of Lessor unless there is a written agreement to the contrary attached to this Lease or agreed to by the Parties in writing at a later date. Lessor shall have the option, at the expiration or termination of this Lease to require Lessee to remove the Alterations and improvements at Lessee's expense; provided, however, that (i) such election to remove must be made with respect to all or none of the Alterations and improvements, and Lessor may not require Lessee to remove some, but not all of the same (unless both Parties otherwise mutually agree at the time); and (ii) if the Alterations and improvements, as of the expiration or termination of this Lease, remain economically and operationally viable (as determined by an independent third party expert mutually selected by or acceptable to the Parties, if Lessor and Lessee are unable to agree on whether the Alterations and improvements are then economically viable, taking into consideration future uses of the Premises which are both economically and operationally viable), then Lessee shall not be required to remove the Alterations and improvements. In the event that Lessor does not require removal, the Alterations and improvements shall be surrendered to Lessor as part of the Premises in accordance with the terms of this Lease.

J. All Lessee's trade fixtures (including, but not limited to, shelving, portable partitions, modular offices, and cabinets), furnishings and other moveable personal property shall remain the property of Lessee and may be removed on or before the termination of this Lease, or any renewal thereof, provided Lessee shall make any repairs necessary to restore the Premises to its original condition upon such removal. If not removed by Lessee upon expiration of this Lease or any extension thereof, Lessor shall have the option to require Lessee to remove such items at Lessee's expense or to treat such items as abandoned. In the event Lessor treats such items as abandoned, they shall become the property of Lessor.

15. **INSURANCE:**

A. **Property Damage:**

(1) If Lessee's use of the Premises requires improvements to be constructed on-site, the construction is at the risk of Lessee until final completion of Lessee's construction. Lessee shall purchase and maintain Builders Risk insurance upon the work at the site to the full insurable value until Lessee's final construction completion. This insurance shall cover the interests of the Port, designers of Lessee's work, Lessee, its contractor, subcontractors and sub-subcontractors in the work at the project site, all of whom shall be listed as additional insureds. The interests of any loss payees shall be automatically included for coverage. Said insurance will insure against the "all-risk" perils including earthquake and flood for physical loss and damage. The insurance shall include damages, losses and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property, including, but not limited to, fees of designers and other professionals. If not covered under the "all risk" insurance, Lessee shall maintain similar property insurance on portions of the work stored on and off the site or in transit when such portions of the work are to be included in a progress payment application. Losses up to the deductible in Paragraph 1.J shall be the sole responsibility of Lessee.

(2) Lessee shall, at all times, maintain "all risk" property insurance (including boiler and machinery insurance) upon any buildings and facilities, including any permanent additions and improvements thereto, of which the Premises form a part with coverage for perils as set forth on the Causes of Loss - Special Form, with a coverage extension for the perils of earthquake, windstorm and flood coverage, in an amount equal to the full replacement cost thereof. Such insurance shall contain an agreed valuation provision in lieu of any co-insurance clause, an ordinance and law endorsement, debris removal coverage and a waiver of subrogation endorsement. All policies or certificates of insurance, indemnity bonds and similar securities protecting the Premises from damage

shall name Lessor as a loss payee, as its interests may appear. Any and all payments from said policies or certificates of insurance, indemnity bonds and similar securities shall be made jointly payable to Lessor and Lessee, deposited in an account satisfactory to Lessor and Lessee during the Term of this Lease for application toward any required repairs or restorations, and made available to Lessee for use in making repairs or restorations. Further, Lessee shall notify Lessor within five (5) days of Lessee's receipt of notification of any modification or cancellation of any insurance contract. Lessee shall provide Lessor with replacement coverage acceptable to Lessor prior to the applicable modification or cancellation taking effect, and in no event more than thirty (30) days of Lessee's notification to Lessor of such modification or cancellation of any insurance contract or indemnity bond. Lessee shall be solely responsible for the insurance premium and any deductible (which shall not exceed the Maximum Deductible set forth in Paragraph I.J or in such amount as shall be adopted by the Port Commission from time to time, which amount shall be consistent with industry standards).

(3) Lessor may, from time to time, require qualified appraisals to be made of the Premises and any and all improvements thereon. Lessee will cooperate with Lessor's appraiser to access and evaluate the Premises upon reasonable notice to Lessee. Upon the establishment of any new insurance premium or deductible, Lessor will advise Lessee by written notice. Lessee shall, within thirty (30) days, submit to Lessor evidence of such increased coverage.

(4) Lessee shall maintain "all risk" property insurance upon any building improvements and personal property owned by Lessee with coverage for perils as set forth on the Causes of Loss - Special Form, with a coverage extension for the perils of earthquake, windstorm and flood coverage, in an amount equal to the full replacement cost thereof. Such insurance shall contain an agreed valuation provision in lieu of any co-insurance clause, an ordinance and law endorsement, debris removal coverage and a waiver of subrogation endorsement.

B. Liability:

(1) Lessee shall maintain, with financially sound and reputable insurers (see Paragraph D(1) below), commercial general liability insurance written on an "occurrence" policy form with coverage at least as broad as ISO CGL form CG 0001, including contractual liability insurance coverage, against claims for bodily injury, property damage, personal injury, products and completed operations, and advertising injury occurring on or about the Premises or in any way relating to or arising out of Lessee's use or occupancy of the Premises with minimum limits as provided in Paragraph I.K or in such amount as shall be adopted by the Port Commission from

time to time, which amount shall be consistent with industry standards but in no event shall be less than the Minimum Coverage Amount set forth in Paragraph I.K. Lessor and its "Related Parties" shall be named as additional insureds with coverage at least as broad as form ISO CG 2026 – Designated Person or Organization (or other comparable endorsement), without modification, affording coverage regardless of the additional insureds' concurrent negligence. Such insurance shall be endorsed to provide that the insurance shall be primary to and not contributory to any similar insurance carried by Lessor, and shall contain a severability of interest or cross liability clause. Further, Lessee shall notify Lessor within five (5) days of Lessee's receipt of notification of any modification or cancellation of any insurance contract or indemnity bond. Lessee shall provide Lessor with replacement coverage acceptable to Lessor prior to the applicable modification or cancellation taking effect, and in no event more than thirty (30) days of Lessee's notification to Lessor of such modification or cancellation of any insurance contract or indemnity bond. Lessor retains the right to increase the coverage amount upon receipt of notice, as required in Paragraph I4, that Lessee intends to make Alterations to the Premises.

(2) In the event that Lessee's use of the Premises requires improvements to be constructed on-site, Lessee shall also provide Contractor's Pollution Liability insurance in the amount of Five Million Dollars (\$5,000,000) per claim and in the aggregate covering Lessee's general contractor and all sub-contractors of every tier during the construction of an improvement. This insurance shall be kept in effect until final completion of the project. In the event that the insurance is written on a claims made basis, the retroactive date shall be before the start of the project. Lessor shall be named as an additional insured on this coverage.

C. **Pollution Legal Liability:** Lessee shall also obtain pollution legal liability insurance against claims for bodily injury, property damage (including third party claims), natural resource damages, and clean up and defense costs occurring on or about the Premises or in any way relating to or arising out of Lessee's use or occupancy of the Premises and use of the Pipeline Easement areas, in the amount specified in Paragraph I.L as an extension of the commercial general liability insurance or as a separate policy. Such policy or policies shall include coverage for sudden and accidental releases as well as any gradual releases arising in any way from Lessee's occupancy of and operations at the Premises. Lessor and its Related Parties shall be named as additional insureds with coverage at least as broad as form ISO CG 2026 – Designated Person or Organization (or other comparable endorsement), without modification, affording coverage regardless of the additional insureds' concurrent negligence. Such insurance shall be endorsed to provide that the insurance shall be primary to and not contributory

to any similar insurance carried by Lessor, and shall contain a severability of interest or cross liability clause. Further, Lessee shall notify Lessor within five (5) days of Lessee's receipt of notification of any modification or cancellation of any insurance contract or indemnity bond. Lessee shall provide Lessor with replacement coverage acceptable to Lessor prior to the applicable modification or cancellation taking effect, and in no event more than thirty (30) days of Lessee's notification to Lessor of such modification or cancellation of any insurance contract or indemnity bond. Lessor has assessed the pollution legal liability coverage amount specified in Paragraph 1.L based on the site conditions investigated by Lessor and the operational information provided by Lessee. A copy of the Tenant Environmental Questionnaire is attached as Exhibit "H". Lessee agrees that it shall provide notice to Lessor of any change in the site conditions or site operations, including without limitation changes in Hazardous Substances handled at the Premises as provided through the new product approval process described in Exhibit "I" thirty (30) days prior to any such change. Lessor retains the right to increase the coverage amount upon its knowledge that Lessee intends to: (i) change its operations, (ii) change its use or other handling of Petroleum Products or Hazardous Substances at the Premises, or (iii) make Alterations to the Premises.

D. Miscellaneous:

(1) Lessee's insurance carrier, for all insurance referenced in this Lease, shall be a reputable insurance company reasonably acceptable to Lessor and licensed to do business in the State of Washington. Lessee's insurance carrier(s) shall have a minimum A-VIII rating as determined by the then current edition of Best's Insurance Reports published by A.M. Best Co.

(2) Lessee shall provide Lessor with certificates of insurance, with a copy of additional insured endorsement in favor of Lessor attached, prior to or at occupancy, concurrently with the execution of this Lease and upon each renewal thereafter, to establish that Lessee's insurance obligations have been met and that the policies are not subject to cancellation or material change without at least thirty (30) days advance written notice to Lessor.

(3) Lessor reserves the right to inspect and require full copies of all insurance policies to be provided to Lessor.

(4) Lessee shall provide workers' compensation coverage (including all coverage mandated by any federal law) pursuant to all statutory requirements as may apply and any other insurance coverage required by law. It is the sole responsibility of Lessee to determine the laws applicable to Lessee's employees and

contractors and the employees and contractors of Lessee's agents operating the Facility. At no time shall Lessor incur any costs or liability due to Lessee's failure to obtain and maintain all insurance coverage required pursuant to applicable law. Lessee further agrees to maintain Employer Liability Act ("ELA") or stop gap insurance coverage of at least the Minimum Coverage Amount set forth in Paragraph I.K. In the event that the workers at the Facility are employed by one or more contractors of Lessee rather than by Lessee directly, Lessee shall not be required to maintain such coverage, but shall require such contractor or contractors to maintain such coverage for all workers at the Facility.

(5) Lessee shall provide Automobile Liability insurance with coverage at least as broad as Business Automobile Liability ISO form CA 0001, covering all owned, non-owned and hired automobiles brought on the Premises, with coverage of at least the Minimum Coverage Amount set forth in Paragraph I.K.

(6) Notwithstanding anything in this Lease to the contrary, neither Party, nor its Related Parties, nor, in case of Lessee, its sublessees, shall be liable to the other Party or to any insurance company (by way of subrogation or otherwise) insuring the other Party, for any loss or damage to any building, structure or other property (whether real or personal) arising from any cause that (i) would be insured against under the terms of any property insurance required to be carried hereunder, or (ii) is insured against under the terms of any property insurance actually carried, regardless of whether the same is required hereunder, even though such loss or damage might have been occasioned by the negligence of such Party or its Related Parties. Each Party shall notify their respective insurance companies of this waiver of any rights of subrogation that such companies may have against Lessor or Lessee, as the case may be and shall obtain any necessary endorsement to avoid such waiver's invalidating the policy in whole or in part. Further, neither Lessor nor any Related Party of Lessor shall be liable for any such damage caused by other lessees or persons in, upon or about the Premises, or caused by operations in construction of any private, public or quasi-public work.

(7) Lessor and Lessee each hereby waive, and in no event shall either Party be liable to the other for, any lost profits, damage to business, or any form of special, indirect or consequential damages.

(8) Lessee shall be solely responsible for all losses up to the applicable deductible.

16. **RELEASE AND INDEMNIFICATION COVENANTS:**

A. Lessee releases Lessor and all officials and employees of Lessor from, and covenants and agrees that neither Lessor nor any Related Party of Lessor shall be liable for, and Lessee agrees to defend, indemnify and

hold Lessor and its Related Parties (hereinafter the “Lessor Indemnitee” or “Lessor Indemnitees”) harmless against, any and all claims, actions, proceedings, damages, liabilities, costs, and expenses incurred (including, without limitation, all attorneys’ fees and expenses arising in connection with each such claim, action or proceeding) from or in connection with: (i) the conduct, operation or management of the Premises or of any business therein, or any work or thing whatsoever done, or any condition created therein or thereon, (ii) any act, omission, or negligence of Lessee or any of its sublessees or licensees or its or their partners, directors, officers, agents, employees, invitees or contractors; (iii) any incident, injury or damage whatever occurring in, at or upon the Premises; and/or (iv) any breach or Default by Lessee in the full and prompt payment and performance of Lessee’s obligations under this Lease, except that (1) Lessee’s indemnity shall not apply to any loss, damage, injury or death to the extent attributable to the negligence or intentional misconduct of Lessor or Lessor Indemnitees (provided, however, that in such event the indemnity shall remain valid for all other Lessor Indemnitees); (2) if and to the extent that this Lease is subject to Section 4.24.115 of the Revised Code of Washington, it is agreed that where liability for damages arising out of bodily injury to persons or damage to property is caused by or results from the concurrent negligence of (a) the Lessor Indemnitee or Lessor Indemnitee’s agents or employees, and (b) the Lessee or its Related Parties, Lessee’s obligations of indemnity under this Paragraph 16 shall be effective only to the extent of the Lessee’s negligence; and (3) liability for any loss, claim, fine or penalty arising from the Release of Petroleum Products or Hazardous Substances or any violation of Environmental Laws shall be governed by the terms of Paragraph 11.H of this Lease.

B. In case any action shall be brought against any Lessor Indemnitee in respect of which indemnity may be sought against Lessee, such Lessor Indemnitee shall promptly notify Lessee in writing and Lessee shall assume the defense thereof, including the employment of counsel and the payment of all expenses incident to such defense. Such Lessor Indemnitee shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be paid by such Lessor Indemnitee unless the employment of such counsel has been authorized by Lessee or counsel for Lessee shall have advised Lessor in writing that there exists actual or potential conflicts of interest which make representation by the same counsel inappropriate. Lessee shall not be liable for any settlement of any such action without its consent but, if any such action is settled with the consent of Lessee or if there be final judgment for the plaintiff of any such action, Lessee

agrees to indemnify and hold harmless Lessor Indemnitees from and against any loss or liability by reason of such settlement or judgment.

C. Lessee specifically and expressly waives any immunity that may be granted Lessee under the Washington State Industrial Insurance Act, Title 51 RCW, or its successor. Further, the indemnification obligation under this Lease shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable to or for any third party under all workers' compensation act (including, but not limited to, the Washington State Industrial Insurance Act, disability benefits acts or other employee benefits acts.

D. Lessor shall indemnify and hold harmless Lessee and its Related Parties ("Lessee Indemnitee" or "Lessee Indemnitees") from and against any and all third party claims for bodily injury and/or property damage arising from or in connection with: (i) any accident, injury or damage whatever occurring in, at or upon the Common Areas; (ii) any act, omission, or negligence of Lessor or its or their officers, agents, employees, invitees or contractors; and/or (iii) any breach or Default by Lessor in the full and prompt performance of Lessor's obligations under this Lease; together with all costs, expenses and liabilities incurred or in connection with each such claim or action or proceeding brought thereon, including, without limitation, all attorneys' fees and expenses at trial and upon appeal, except that (1) Lessor's Indemnity shall not apply to bodily injury, death and/or property damage to the extent attributable to the negligence or intentional misconduct of Lessee or Lessee Indemnitee(s) (provided, however, that in such event the indemnity shall remain valid for all other Lessee Indemnitees); (2) if and to the extent that this Lease is subject to Section 4.24.115 of the Revised Code of Washington, it is agreed that where liability for damages arising out of bodily injury to persons or damage to property is caused by or results from the concurrent negligence of (a) a Lessee Indemnitee or Lessee Indemnitees, and (b) the Lessor or the Lessor's agents or employees, Lessor's obligations of indemnity under this paragraph shall be effective only to the extent of the Lessor's negligence; (3) liability for any loss, claim, fine or penalty arising from the Release of Petroleum Products or Hazardous Substances or any violation of Environmental Laws shall be governed by the terms of Paragraph 11.H of this Lease and not by this Paragraph 16.D; and (4) liability for property damage arising from a fire or other casualty shall be governed by Paragraph 17 of this Lease and not by this Paragraph 16.D.

E. The indemnification provisions of this Paragraph 16 shall survive the expiration or earlier termination of this Lease, and are independent of, and will not limit or be limited by, any insurance obligations in this Lease (whether or not complied with).

17. **DAMAGE OR DESTRUCTION:**

A. In the event the Premises or any portion thereof shall be damaged or destroyed by fire or any other insured casualty, or any other insured peril whatsoever, at any time during the term of this Lease, then and in such event, unless the damage exceeds fifty percent (50%) of the replacement cost thereof or will take more than one year to repair, Lessee will or will cause to repair and restore the buildings and improvements in substantially the same location and condition before damage occurred.

B. In the event Lessee elects, undertakes, or is required to rebuild, the proceeds of any insurance policies which are required hereunder shall be first devoted exclusively to the repair and restoration of the damaged or destroyed buildings and improvements located on the Premises and the expenditure of such sum by Lessee for the restoration thereof shall be considered full compliance with the covenant to repair and restore. All property insurance proceeds on Lessee's buildings and improvements owned by Lessee, whether or not used to repair or restore said damage, shall be paid to Lessor and Lessee jointly. All property insurance proceeds on Lessor provided site improvements shall be paid to Lessor.

C. In the event the Premises or any portion thereof is damaged or destroyed to an extent exceeding fifty percent (50%) of the replacement cost thereof, or if Lessor reasonably determines that repair or restoration of any damage cannot be completed within one year, or if there is less than three (3) years remaining in the Term, Lessee shall have the option to elect either to repair and restore the buildings and improvements located on the Premises to substantially the same location and condition as existed before damage occurred or to terminate this Lease. In the event Lessee elects to terminate this Lease: (i) Lessee shall give Lessor written notice of such termination within forty-five (45) days of the date of damage, and (ii) Lessor shall be entitled to any casualty insurance proceeds necessary to repair or replace the improvements or Alterations to the extent affected by such damage or destruction. If Lessee is not in Default under this Lease, any prepaid or unearned rent shall be returned to Lessee.

D. In the event the Premises or any portion thereof is damaged or destroyed, to whatever extent, but Lessor and Lessee agree to maintain this Lease during the time of repair and restoration, Lessee shall be entitled to a reduction of Rent equal to that portion of the Premises unusable as a result of the damage and/or destruction so long as Lessee is at all times diligently pursuing such repair or restoration to completion.

18. **SUBORDINATION AND ATTORNMENT:**

A. Lessor shall have the absolute right to sell, transfer, convey, assign and encumber its interest in this Lease and its estate in the Premises (called "Lessor's Interest"), or any part thereof (including, but not limited to, Lessor's reversion), and to delegate all or any portion of its obligations hereunder, from time to time as it sees fit, without obtaining any approval from Lessee.

B. This Lease shall be subject and subordinate to any encumbrances and to any extensions or renewals thereof which are now, or may hereafter be placed by Lessor, its successors or assigns, upon the whole or any part of Lessor's property and which includes the Premises. Promptly upon request by Lessor and without expense to Lessor, Lessee shall execute and deliver any instrument which may be reasonably required by Lessor or its current or prospective lender, bondholders or the trustee for Lessor's bonds, or the holder of the secured party's interest in any loan (collectively "Mortgagee") with regard to the Premises in confirmation of such subordination. If Lessee shall fail at any time to execute and deliver any such subordination, Lessor, in addition to any other remedy available to it in consequence thereof, may execute and deliver such instrument as the attorney-in-fact of Lessee; and Lessee hereby appoints Lessor as attorney-in-fact for such limited purpose.

C. In the event that Lessor sells or assigns its interest or estate absolutely, Lessee shall be bound to the purchaser or assignee under all of the covenants, terms and conditions of this Lease for the balance of the Term with the same force and effect as if such purchaser or assignee was the lessor under the Lease and Lessee hereby attorns to such purchaser or assignee as its landlord, such attornment to be effective and self-operative without the execution of any further instrument on the part of either of the Parties hereto immediately upon such purchaser's or assignee's succeeding to the interest or estate of Lessor. Specifically, on receipt of a notice from Mortgagee that Rents should be paid to Mortgagee, Lessee shall pay all Rents to Mortgagee or its designee directly. If the Mortgagee succeeds to the interest of Lessor under the Lease, Mortgagee shall not be: (i) liable for any act or omission of Lessor or any prior landlord; (ii) liable for the return of any Security Deposit unless such deposit has been delivered to Mortgagee by Lessor or is in an escrow fund available to Mortgagee; (iii) subject to any offsets or defenses that Lessee might have against any prior landlord (including Lessor); (iv) bound by any rent or additional rent that Lessee might have paid for more than the current month to any prior landlord (including Lessor); (v) bound by any amendment, modification, or termination of the Lease made without Mortgagee's consent; (vi) personally liable under the Lease, Mortgagee's liability hereunder being limited to its interest in the Premises; or (vii) bound by

any notice of termination given by Lessor to Lessee without Mortgagee's prior written consent thereto. If during the pendency of foreclosure proceedings or otherwise, there is appointed by the court a receiver for the property of which the Premises are a part, Lessee hereby attorns to the receiver as its landlord during the pendency of such foreclosure proceeding, such attornment to be effective and self-operative without the execution of any further instrument on the part of either Party.

D. If requested by any Mortgagee, or any ground lessor, Lessee will agree to give such Mortgagee or ground lessor, a reasonable opportunity to cure any Default by Lessor under this lease.

19. **ASSIGNMENT OR SUBLEASE:** Except as specifically provided in this Paragraph 19, Lessee shall not assign, in whole or in part, this Lease or any extension thereof, nor shall Lessee rent or sublease all or any part of the Premises, to a third party, without the prior written consent of Lessor, which shall not be unreasonably withheld or delayed so long as the Permitted Use and all other terms and conditions hereof (other than the identity of Lessee) remain unchanged following such assignment, and so long as Lessee demonstrates to Lessor's sole satisfaction that the proposed assignee (i) has the financial ability to pay and perform the obligations of Lessee under this Lease, and (ii) has the ability and experience to operate the Facility for the Permitted Use, and no rights hereunder in or to said Premises shall pass by operation of law or other judicial process or through insolvency proceedings.

Notwithstanding the foregoing, if the assignment is the direct result of a change of ownership or control of the business operated by Lessee at the Premises by a non-third-party merger or consolidation of Lessee (including an internal merger or consolidation of the Lessee or a division(s) thereof) or a transfer to an affiliate of Lessee or an entity owned or controlled by Tesoro Corporation, a Delaware corporation, or Savage Companies, a Utah corporation, Lessor's consent shall not be required. The rights and obligations hereof shall extend to and be binding upon Lessor's and Lessee's respective permitted successors and assigns as the case may be. Lessee will furnish Lessor with copies of all such assignment, sublease or rental documents. For the purposes of this Lease, any change of fifty percent (50%) or more of the beneficial ownership of the Lessee including sale, liquidation or other disposition of corporate stock or limited liability company units (or a sale of substantially all of the assets) will be considered an assignment. Should Lessor consent to any assignment made by Lessee solely for the purposes of obtaining a loan or other consideration from a third party (as opposed to a merger, consolidation, sale of assets, corporate stock or limited liability units), then Lessor's consent shall be made in accordance with a mutually agreed

Consent to Assignment. Upon any assignment of this Lease or sublease of the Premises, Lessee shall continue to be obligated under this Lease.

B. If Lessor refuses to consent to an assignment, Lessee's sole remedy shall be the right to bring declaratory action to determine whether Lessor was entitled to refuse such assignment under the terms of this Lease.

C. The granting of consent to any assignment or sublease shall not constitute a waiver of Lessor's discretion to approve or disapprove any future request for permission to assign or sublease in accordance with the requirements of Paragraph 19.A. Acceptance of rent or other performance by Lessor following an assignment or sublease, whether or not Lessor has knowledge of such assignment or sublease, shall not constitute consent to the same nor a waiver of the requirement to obtain consent to the same.

D. Unless otherwise agreed in writing, the initial Lessee and any assignee of Lessee shall remain liable for the full performance of all obligations of Lessee hereunder during the entire Term of this Lease.

E. A minimum handling and transfer fee ("Transfer Fee") of Two Thousand Five Hundred and 00/100 Dollars (\$2,500.00) shall be payable by Lessee to Lessor if Lessee requests that Lessor's consent to a proposed assignment (including an assignment to a creditor for security purposes), sublease or modification of this Lease. Such Transfer Fee shall be submitted to Lessor at the same time that Lessee requests Lessor's consent to the proposed sublease, assignment or modification. If Lessor's reasonable and customary attorneys' fees exceed the Transfer Fee, then Lessee agrees to reimburse Lessor for such additional reasonable and customary attorneys' fees. Lessee's failure to remit this additional amount within sixty (60) days of the mailing of notice of such charges shall constitute a Default under this Lease.

F. In the event Lessee fails or refuses to pay Rent or Additional Charges when due or is otherwise in Default as defined in Paragraph 23 of this Lease, any sublessee of Lessee shall direct all rental and other payments under the sublease directly to Lessor upon written notice from Lessor and without liability to the original Lessee. In the event Lessor elects to terminate the Lease due to a Default by Lessee, any sublease previously agreed to shall, at Lessor's sole discretion, automatically become a direct lease between Lessor and the sublessee, subject to all terms and conditions of this Lease (including bond, security and insurance requirements) without further action by any Party.

20. **LEASEHOLD MORTGAGES:** Lessee shall have the right, in addition to any other rights granted and without any requirement to obtain Lessor's consent, to mortgage or grant a security interest in Lessee's interest in

this Lease, the Premises and the Alterations, and in any subleases, under one or more leasehold mortgages or pursuant to a sale-leaseback financing arrangement to one or more Lending Institutions (as defined in Paragraph 20.B) and/or under one or more purchase-money leasehold mortgages to a Lending Institution, and to assign this Lease and any subleases to a Lending Institution as collateral security for such leasehold mortgages or pursuant to the sale-leaseback financing arrangement, on the condition that all rights acquired under such leasehold mortgages or pursuant to the sale-leaseback financing arrangement shall be subject to each and all of the covenants, conditions, and restrictions set forth in this Lease and to all rights and interests of Lessor, none of which covenants, conditions, restrictions, rights, or interests is or shall be waived by Lessor by reason of the right given to mortgage or grant a security interest in Lessee's interest in this Lease and the Premises and the Improvements, except as expressly provided otherwise. During any period of time that Lessor's deed of trust to secure the payment of the WS&F Lien Amount is an encumbrance against the improvements and Alterations located on the Premises, any Permitted Leasehold Mortgage (defined below) shall be subject and subordinate to Lessor's deed of trust.

B. Any mortgage or sale-leaseback financing arrangement made pursuant to this paragraph is referred to as a "Permitted Leasehold Mortgage," and the holder of or secured party under a Permitted Leasehold Mortgage is referred to as a "Permitted Leasehold Mortgagee." The Permitted Leasehold Mortgage that is prior in lien or interest among those in effect is referred to as the "First Leasehold Mortgage," and the holder of or secured party under the First Leasehold Mortgage is referred to as the "First Leasehold Mortgagee." For the purposes of any rights created under this paragraph, any so-called wraparound lender that is a Lending Institution shall be considered a First Leasehold Mortgagee. If a First Leasehold Mortgage and a Permitted Leasehold Mortgage that is second in priority in lien or interest among those in effect are both held by the same Permitted Leasehold Mortgagee, the two Permitted Leasehold Mortgages are collectively referred to as the "First Leasehold Mortgage." A "Permitted Leasehold Mortgage" includes, without limitation, mortgages and trust deeds as well as financing statements, security agreements, sale-leaseback instrumentation, and other documentation that the lender may require. The words "Lending Institution", as used in this Lease, mean (1) a bank (state, federal or foreign), trust company (in its individual or trust capacity), insurance company, credit union, savings bank (state or federal), pension, welfare or retirement fund or system, real estate investment trust (or an umbrella partnership or other entity of which a real estate investment trust is the majority owner), federal or state agency regularly making or guaranteeing mortgage loans, investment bank, subsidiary of a Fortune 500 company (such as General Electric Capital Corporation), real

estate mortgage investment conduit, or securitization trust; (2) any issuer of collateralized mortgage obligations or any similar investment entity (provided that either (a) at least certain interests in such issuer or other entity are publicly traded or (b) such entity was or is sponsored by an entity that otherwise constitutes a Lending Institution or has a trustee that is, or is an Affiliate of, any entity that otherwise constitutes a Lending Institution), or any Person acting for the benefit of or on behalf of such an issuer; (3) any Person actively engaged in commercial real estate financing and having total assets (on the date when its Leasehold Mortgage is executed and delivered, or on the date of such Leasehold Mortgage's acquisition of its Leasehold Mortgage by assignment, but excluding the value of any Leasehold Mortgage encumbering this Lease) of at least Five Hundred Million and 00/100 Dollars (\$500,000,000.00); (4) any Person that is a wholly owned subsidiary of or is a combination of any one or more of the foregoing Persons; or (5) any of the foregoing when acting as trustee, agent, or administrative agent for other lender(s) or investor(s), whether or not such other lender(s) or investor(s) are themselves Lending Institutions. The fact that a particular Person (or any Affiliate of such Person) is a partner, member, or other investor of the then Lessee shall not preclude such Person from being a Lending Institution and a Leasehold Mortgagee provided that: (a) such entity has, in fact, made or acquired a bona fide loan to Lessee secured by a Leasehold Mortgage or is a Mezzanine Lender; (b) such entity otherwise qualifies as Lending Institution and a Leasehold Mortgagee (as applicable); and (c) at the time such entity becomes a Leasehold Mortgagee, no Default exists under this Lease, unless simultaneously cured.

C. If a Permitted Leasehold Mortgagee sends to Lessor a true copy of its Leasehold Mortgage, together with written notice specifying the name and address of the Permitted Leasehold Mortgagee, then as long as such Permitted Leasehold Mortgage remains unsatisfied of record or until written notice of satisfaction is given by the holder to Lessor, the following provisions shall apply (in respect of such Permitted Leasehold Mortgage):

(1) Except as expressly provided otherwise below, a Leasehold Mortgagee shall not be bound by any cancellation, termination, surrender, acceptance of surrender, amendment, or modification of this Lease without in each case the prior consent in writing of the Permitted Leasehold Mortgagee. Nor shall any merger result from the acquisition by, or devolution upon, any one entity of the fee and the leasehold estates in the Premises.

(2) Lessor shall, upon serving Lessee with any notice, whether of Default or any other matter, simultaneously serve a copy of such notice on the Permitted Leasehold Mortgagee, and no such notice to

Lessee shall be deemed given unless a copy is so served on the Permitted Leasehold Mortgagee in the manner provided in this Lease for giving notices.

(3) In the event of any Default by Lessee under this Lease, each Permitted Leasehold Mortgagee has the same period as Lessee has, plus thirty (30) days, after service of notice on it of such Default, to remedy or cause to be remedied or commence to remedy and complete the remedy of the Default complained of for such default, and Lessor shall accept such performance by or at the instigation of such Permitted Leasehold Mortgagee as if the same had been done by Lessee. Each notice of non-monetary Default given by Lessor will state the amounts of whatever Rent or Additional Charges are then claimed to be in default, if any.

(4) If Lessor elects to terminate this Lease by reason of any Default of Lessee, the Permitted Leasehold Mortgagee, in addition to the rights granted under the preceding paragraph, shall also have the right to postpone and extend the specified date for the termination of this Lease as fixed by Lessor in its notice of termination, for a period of six months, provided that the Permitted Leasehold Mortgagee shall cure or cause to be cured any then-existing defaults in payment of Rent and Additional Charges and meanwhile pay the Rent and Additional Charges, and provided further that the Permitted Leasehold Mortgagee shall forthwith take steps to acquire or sell Lessee's interest in this Lease by foreclosure of the Permitted Leasehold Mortgage or otherwise and shall prosecute the same to completion with all due diligence. If, at the end of the six-month period, the Permitted Leasehold Mortgagee is actively engaged in steps to acquire or sell Lessee's interest, the time of the Permitted Leasehold Mortgagee to comply with the provisions of this Paragraph 20.C shall be extended for such period as is reasonably necessary to complete such steps with reasonable diligence and continuity.

(5) Lessor agrees that the name of the Permitted Leasehold Mortgagee may be added to the "Loss Payable Endorsement" of any and all insurance policies required to be carried by Lessee or Lessor.

(6) Lessor agrees that in the event of termination of this Lease by reason of any Event of Default by Lessee, Lessor will enter into a new lease of the Premises with the Permitted Leasehold Mortgagee or its nominee, for the remainder of the Term, effective on the date of such termination, at the Rent and Additional Charges and on the terms, provisions, covenants, and agreements contained in this Lease and subject only to the same conditions of title as this Lease is subject to on the date this Lease is executed, and to the rights, if any, of any parties then in possession of any part of the Premises, provided:

a) The Permitted Leasehold Mortgagee or its nominee shall make written request on Lessor for such new lease within fifteen (15) days after the date of termination indicated in the notice of termination given to Permitted Leasehold Mortgagee and such written request shall be accompanied by payment to Lessor of Rent and Additional Charges then due to Lessor under this Lease.

b) The Permitted Leasehold Mortgagee or its nominee shall pay to Lessor, at the time the new lease is executed and delivered, any and all Rent and Additional Charges that would be due at the time of the execution and delivery of the new lease pursuant to this Lease but for such termination, and in addition any expenses, including reasonable attorneys' fees, to which Lessor shall have been subjected by reason of such Default.

c) The Permitted Leasehold Mortgagee or its nominee shall ensure that any security and guaranty(ies) are in full force and effect, and shall perform and observe all covenants contained in this Lease on Lessee's part to be performed and further shall remedy any other conditions that Lessee under the terminated Lease was obligated to perform; and upon execution and delivery of such new lease, any subleases, security that may have been assigned and transferred previously by Lessee to Lessor, as security under this Lease, shall then be held by Lessor as security for the performance of all the obligations of Lessee under the new lease.

d) Lessor shall not warrant possession of the Premises or the Improvements to Lessee under the new lease.

e) Such new lease shall be expressly made subject to the rights, if any, of Lessee under the terminated Lease.

f) Lessee under such new lease shall have the same right, title, and interest in and to the Alterations on the Premises as Lessee had under the terminated Lease.

g) Nothing contained in this Lease requires the Permitted Leasehold Mortgagee or its nominee to cure any Default that occurs as a result of the status of Lessee, such as Lessee's bankruptcy or insolvency, or to discharge any lien, charge, or encumbrance against Lessee's interest in this Lease junior in priority to the lien of the Permitted Leasehold Mortgage.

h) The First Leasehold Mortgagee shall be given notice of any arbitration or other proceeding or dispute by or between the Parties and shall have the right to intervene and be made a party to any such arbitration or other proceeding. In any event, each Permitted Leasehold Mortgagee shall receive notice of, and a copy of, any award or decision made in the arbitration or other proceeding.

i) Any award or payment in condemnation or eminent domain in respect of the improvements shall be paid to the First Leasehold Mortgagee for the benefit of the Parties and applied in the manner specified in this Lease.

j) No fire or casualty loss claims shall be settled and no agreement will be made in respect of any award or payment in condemnation or eminent domain without in each case the prior written consent of the First Leasehold Mortgagee.

k) Except as otherwise provided in this Paragraph 20, no liability for the payment of Rent or Additional Charges or the performance of any of Lessee's covenants and agreements shall attach to or be imposed on the Permitted Leasehold Mortgagee (other than any obligations assumed by the Permitted Leasehold Mortgagee), all such liability (other than any obligations assumed by the Permitted Leasehold Mortgagee) being expressly waived by Lessor.

l) Lessor, within 10 days after request in writing by Lessee or any Permitted Leasehold Mortgagee, shall furnish a written statement, duly acknowledged, that this Lease is in full force and effect and unamended, or if there are any amendments, such statement will specify the amendments, and that there are no Defaults by Lessee that are known to Lessor, or if there are any known Defaults, such statement shall specify the Defaults Lessor claims exist.

m) No payment made to Lessor by any Permitted Leasehold Mortgagee shall constitute agreement that such payment was, in fact, due under the terms of this Lease; and the Permitted Leasehold Mortgagee having made any payment to Lessor pursuant to Lessor's wrongful, improper, or mistaken notice or demand shall be entitled to the return of any such payment or portion, provided it shall have made demand not later than one year after the date of its payment.

n) Lessor, on request, shall execute, acknowledge, and deliver to each Permitted Leasehold Mortgagee an agreement prepared at the sole cost and expense of Lessee, in form satisfactory to the Permitted Leasehold Mortgagee and Lessor, among Lessor, Lessee, and the Permitted Leasehold Mortgagee, agreeing to all the provisions of this paragraph.

o) Lessor shall at no time be required to subordinate its fee simple interest in the Premises to the lien of any leasehold mortgage, nor to mortgage its fee simple interest in the Premises as collateral

or additional security for any leasehold mortgage. Lessor shall attorn to any Permitted Leasehold Mortgagee or any other person who becomes Lessee by, through, or under a Permitted Leasehold Mortgage.

p) If Lessee is declared bankrupt or insolvent and this Lease is thereafter lawfully canceled or rejected, Permitted Leasehold Mortgagee or its nominee, shall accept the existing lease in bankruptcy.

q) If Lessor declares bankruptcy and Lessor's bankruptcy trustee rejects this Lease when there is a Permitted Leasehold Mortgagee, Lessee's right to elect to terminate this Lease or to retain its rights pursuant to 11 USC §365(h)(1) shall be exercised by the Permitted Leasehold Mortgagee.

21. **ESTOPPEL CERTIFICATE:** Lessee and Lessor shall each, at any time and from time to time without charge, and within ten (10) days after written request therefor by the other Party, complete, execute, and deliver to the requesting Party a written statement concerning the terms of this Lease, whether it is in full force and effect, if there are any Defaults hereunder, and such other information as may be required by the requesting Party, but only as typically provided in an estoppel certificate.

22. **[INTENTIONALLY DELETED].**

23. **LIENS:** Except for the deed of trust granted by Lessee to Lessor to secure the payment of the WS&F Lien Amount and any Permitted Leasehold Mortgage, Lessee shall keep the Premises and Lessee's leasehold interest therein free and clear of, and shall indemnify, defend and hold harmless Lessor against, all liens, charges, mortgages, and encumbrances which may result from any act or neglect of Lessee, including but not limited to liens for utility charges and mechanics and materialman liens, and all expenses in connection therewith, including attorneys' fees; it being expressly agreed that Lessee or any transferee, assignee, delegate or sublessee shall have no power or authority to create any such lien, charge, mortgage or encumbrance except with the prior written approval of Lessor. Nothing herein shall prevent Lessee from litigating any Lien not believed by Lessee to be valid, providing that (i) such contest will not expose Lessor to civil or criminal liability, fine or penalty, (ii) such contest will not subject the Premises to sale, forfeiture, foreclosure or interference, and (iii) Lessee provides to Lessor security, reasonably satisfactory to Lessor against any loss or injury by reason of such contest and prosecutes the contest with due diligence.

24. **DEFAULT OR BREACH:**

Time is of the essence of this Lease. Each of the following events shall constitute an event of default and breach ("Default") of this Lease:

A. If Lessee, or any successor or assignee of Lessee while in possession, shall file a petition in bankruptcy or insolvency or for reorganization under any Bankruptcy Act, or shall voluntarily take advantage of any such Act by answer or otherwise, or shall make an assignment for the benefit of creditors.

B. If involuntary proceedings under any bankruptcy law or insolvency act shall be instituted against Lessee, or if a receiver or trustee shall be appointed for all or substantially all of the property of Lessee, and such proceedings shall not be dismissed or the receivership or trusteeship vacated within one hundred twenty (120) days after the institution or appointment.

C. If Lessee shall fail to pay to Lessor Rent or Additional Charges when due, taking into account any grace period for payment provided hereunder.

D. If Lessee shall fail to provide a bond or other security in violation of Paragraph 6 and maintain it throughout the Term of this Lease and sixty (60) days thereafter.

E. If Lessee shall fail to provide the insurance required under Paragraph 15.

F. If Lessee shall fail to occupy and use the Premises continuously during the Term of this Lease in violation of Paragraph 8.A.

G. If this Lease or the interest of Lessee under this Lease shall be assigned, sublet or otherwise transferred to or shall pass to or devolve on any other person or party, voluntarily or involuntarily, except in the manner expressly permitted in this Lease.

H. If Lessee shall fail to perform or comply with any other term or condition of this Lease, and if the non-performance shall continue for a period of twenty (20) days after notice of non-performance given by Lessor to Lessee or, if the performance cannot be reasonably accomplished within the twenty (20) day period, Lessee shall not in good faith have commenced performance within the twenty (20) day period and shall not diligently proceed to completion of performance within a reasonable time thereafter.

I. If any default or event of default of Lessee shall arise under any Pipeline Agreement and continue beyond any applicable notice or cure period available to Lessee thereunder.

H. Lessor shall use commercially reasonable efforts to mitigate its damages following a Default by Lessee hereunder.

In the event that Lessor fails to perform or comply with any term or condition of this Lease, and if the non-performance shall continue for a period of twenty (20) days after notice of non-performance given by Lessee to

Lessor or, if the performance cannot be reasonably accomplished within the twenty (20) day period, Lessor shall not in good faith have commenced performance within the twenty (20) day period and shall not diligently proceed to completion of performance within a reasonable time thereafter, then Lessee shall have all rights and remedies available at law or in equity as a result of Lessor's breach.

25. **EFFECT OF DEFAULT:**

In the event of any Default by Lessee under this Lease, Lessor shall have the following rights and remedies:

A. In the event of any Default by Lessee or any person claiming under, by, or through Lessee, or any threatened or attempted Default by such person, Lessor shall be entitled to pursue an injunction against such person enjoining such Default (other than an injunction to cause Lessee to continuously operate the Premises pursuant to the terms of Paragraph 8.A). Nothing herein contained precludes Lessor from pursuing any other remedies available hereunder or at law or equity to Lessor for such breach, including eviction and the recovery of damages.

B. Lessor shall have the right to terminate this Lease, as well as all right, title and interest of Lessee under this Lease, by giving to Lessee not less than thirty (30) days notice of the termination effective on a date specified in the notice. No act of Lessor or its agents shall be deemed a termination of this Lease and no agreement of Lessor to terminate this Lease shall be valid, effective, or enforceable unless in writing and signed by Lessor. On the termination date specified in the notice, this Lease, and the right, title and interest of Lessee under this Lease, shall terminate in the same manner and with the same force and effect, except as to Lessee's liability, as if such termination date was the end of the Term originally set forth in this Lease.

C. Lessor may elect, but shall not be obligated, to make any payment required of Lessee in this Lease or to comply with any agreement, term, or condition required by this Lease to be performed by Lessee. Lessor shall have the right to enter the Premises for the purpose of curing any such Default and to remain until the Default has been cured. In either case, Lessor may charge to Lessee as Additional Charges the amount of such payment or the cost of such compliance or cure, together with interest thereon at the Interest Rate from the date of such payment. Any such cure by Lessor shall not be deemed to waive or release the Default of Lessee or the right of Lessor to take any action as may be otherwise permissible under this Lease in the case of any Default.

D. Lessor may re-enter the Premises immediately and remove the personal property and personnel of Lessee, and store the property in a public warehouse or at a place elected by Lessor, at the expense of Lessee.

Lessor may also remove any third party's property, and store the same in a public warehouse or other place

elected by Lessor at the third party's expense, after Lessor has contacted the third party owner and given said third party owner ten (10) days' notice of Lessor's intent to remove the property. After re-entry, Lessor may terminate this Lease on giving thirty (30) days' notice of termination to Lessee. Without the notice, re-entry will not terminate this Lease.

E. After re-entry, Lessor may relet the Premises or any part of the Premises for any term without terminating this Lease, at the rent and on the terms as Lessor may choose. Lessor may make Alterations and repairs to the Premises. The duties and liabilities of the Parties upon the reletting of the Premises as provided in this paragraph shall be as follows:

(1) In addition to Lessee's liability to Lessor for breach of this Lease, Lessee shall be liable for all expenses of the reletting, for the Alterations and repairs made, and for the difference between the rent and additional charges received by Lessor under the new lease agreement, and the Rent and Additional Charges that are due for the same period under this Lease.

(2) To the fullest extent permitted by law, Lessor shall have the right to apply the rent received from reletting the Premises to any amount as Lessor may decide in Lessor's sole discretion, including but not limited to any or all of the following: (a) the interest owed by Lessee to Lessor under this Lease, (b) attorneys' fees and costs owed by Lessee to Lessor under this Lease, (c) expenses of the reletting and alterations and repairs made, (d) Rent or Additional Charges due under this Lease, or (e) future Rent or Additional Charges under this Lease as they become due.

(3) If the new Lessee does not pay a rent installment promptly to Lessor, and the rent installment has been credited in advance of payment to the indebtedness of Lessee other than Rent, or if rentals from the new Lessee have been otherwise applied by Lessor as provided for in this subparagraph E and during any rent installment period or less than the rent payable for the corresponding installment period under this Lease, Lessee shall pay Lessor the deficiency, separately for each rent installment deficiency, and before the end of that period. Lessor may at any time after reletting terminate this Lease for the breach on which Lessor had based the re-entry and subsequently relet the Premises, and in such event the provisions of subparagraph G hereof shall apply.

F. Lessor shall be entitled to recover damages from Lessee for any Default by Lessee, without prejudice to any of Lessor's other rights or remedies hereunder or at law or equity, including Lessor's right to terminate this Lease. If this Lease is terminated for any reason, Lessee's liability to Lessor for damages shall

survive such termination. In the event of termination as a result of any Default by Lessee, Lessor shall be entitled to recover immediately without waiting until the due date of any future Rent and/or Additional Charges or until the date fixed for expiration of the Term, the following amounts as damages determined as of the date of termination:

- (1) Any Rent, Additional Charges and late charges due under the Lease as of the date of termination, together with interest thereon at the Interest Rate from the date each sum became due through the date of termination;
- (2) Notwithstanding anything to the contrary herein and notwithstanding the exercise of any other rights and remedies of Lessor, including but not limited to the right to re-enter the Premises as set forth herein, any excess of the value of all of Lessee's obligations under this Lease, including the obligation to pay Rent and Additional Charges, from the date of termination until the end of the Term remaining immediately prior to such termination, over the reasonable rental value of the Premises for the same period figured as of the date of termination, plus the loss of reasonable rental value of the Premises as of the end of the Term resulting from Lessee's Default, the net result to be discounted to the date of termination at the rate of five percent (5%) per annum;
- (3) The reasonable costs of re-entry and re-letting including without limitation the cost of any clean-up, refurbishing, removal of Lessee's property and fixtures, and any other expense occasioned by Lessee's failure to quit the Premises upon termination or to leave them in the required condition, and any remodeling costs, broker commissions and advertising costs, together with interest thereon at the Interest Rate from the date such costs are incurred by Lessor until paid; and
- (4) Any other damages recoverable at law, in equity or under this Lease, including but not limited to any doubling of damages permitted under RCW 59.12.170.

The foregoing damages shall bear interest at the Interest Rate from the termination date until paid.

G. Lessor's rights and remedies shall be cumulative and may be exercised and enforced concurrently. Any right or remedy conferred upon Lessor under this Lease shall not be deemed to be exclusive of any other right or remedy it may have. In the event of a Default in the payment of Additional Charges, Lessor shall have all the rights and remedies provided at law, in equity or in this Lease for a Default in the payment of Rent.

26. **CONDEMNATION OR TERMINATION BY COURT ORDER:**

A. If all or any part of the Premises are condemned by any public body, and the part not taken is not suitable for continued operation of Lessee's business (as determined by Lessee and Lessor after consultation, or, if Lessor and Lessee are unable to agree, as determined by a court of competent jurisdiction), Lessee may, at its option, terminate this Lease as of the date of such taking, and, if Lessee is not in Default under any of the provisions of this Lease on said date, any Rent or Additional Charges prepaid by Lessee shall be promptly refunded to Lessee. Upon such termination, the entire estate and interest of Lessee in the Premises shall cease and Lessee shall have no further rights or obligations hereunder, except for any rights and obligations intended to survive the expiration or termination of this Lease, including (without limitation) the obligations of Lessee pursuant to Paragraph 28; provided, however, that if only a portion of the Premises is condemned, then Lessee's obligations for repair and restoration of any improvements located on the Premises shall apply only to the portion of the Premises that is surrendered to Lessor and is not the subject of the condemnation action.

B. In the event that any court having jurisdiction in the matter shall render a decision which has become final and which will prevent the performance by Lessor of any of its obligations under this Lease, then either Party hereto may terminate this Lease by written notice, and all rights and obligations hereunder (with the exception of any undischarged rights and obligations that accrued prior to the effective date of termination and any rights and obligations intended to survive the expiration or termination of this Lease) shall thereupon terminate. If Lessee is not in Default under any of the provisions of this Lease on the effective date of such termination, any Rent or Additional Charges prepaid by Lessee shall, to the extent allocable to any period subsequent to the effective date of termination, be promptly refunded to Lessee.

C. In every case of taking or sale of the Premises, or any part thereof to which this Paragraph 26 is applicable; (i) the net proceeds (excluding any portion thereof which is attributable to Lessee's trade fixtures and equipment, which shall belong to Lessee so long as Lessee is not then in Default hereunder, and any separate award to Lessee for relocation costs) shall be applied following order of priority until the net proceeds are exhausted:

- (1) First, to Lessor, to the extent of the Land Award;
- (2) Second, to Lessee, to the extent of the Building Leasehold Award;
- (3) Last, to Lessor, to the extent of any remaining net proceeds; and

(ii) if this Lease is not terminated pursuant to Paragraph 26.A, the Rent shall be reduced proportionately to the reduction in the square footage of the Premises as a result of the taking. If a court that is authorized to fix and determine the condemnation award fails to fix and determine, separately and apart, the Land Award and Building Leasehold Award, such amounts shall be determined and fixed by agreement between Lessor and Lessee (or if Lessor and Lessee are unable to agree, shall be determined by a proceeding in the court in which the eminent domain proceeding is brought).

27. **HOLDING OVER:** In the event Lessee for any reason shall hold over after the expiration of this Lease, without written consent by Lessor, such holding over shall not be deemed to operate as a renewal or extension of this Lease, but shall only create a tenancy terminable at will at any time by Lessor. In this event the Rent owing from Lessee to Lessor shall equal one hundred fifty percent (150%) of the Base Monthly Rent during the last month prior to the holdover period, unless otherwise agreed. If Lessee, with written consent of Lessor, holds over after the expiration or sooner termination of this Lease, the resulting tenancy shall be on a month-to-month basis, upon agreed upon Rent terms. Lessee shall continue to be bound by all other pertinent provisions of this Lease.

28. **SURRENDER OF PREMISES:** Prior to the vacation of the Premises, and in addition to the requirements in Paragraph 11, Lessee shall promptly surrender possession of the Premises, and shall deliver all keys that it may have to any and all parts of the Premises. The Premises shall be surrendered to Lessor in the same condition in which the Premises were received, reasonable wear and tear excepted, and in the state of repair and maintenance required by the terms of this Lease. All Alterations and improvements allowed by Lessor shall be surrendered to Lessor in the same condition in which they were made, reasonable wear and tear excepted, and in the state of repair and maintenance required by the terms of this Lease, unless Lessor elects to permit or require Lessee to remove some or all of such improvements or Alterations (to the extent Lessor may require such removal pursuant to the terms hereof). Lessor may, at its option, exercised within ten (10) days after termination notice or expiration of this Lease, require Lessee expeditiously to remove any or all improvements and fixtures placed on the Premises by Lessee and which would otherwise remain the property of Lessor. In addition to all other requirements under this Lease, including but not limited to Paragraphs 11.L and 12.B, Lessor may require Lessee to repair any physical damage resulting from such removal, or Lessor may elect to do so itself and charge the cost to Lessee with interest at fifteen percent (15%) per annum from the date of expenditure, which shall be payable by Lessee forthwith on demand.

29. **JOINT AND SEVERAL LIABILITY:**

A. Each and every party who signs this Lease, other than in the representative capacity, as Lessee, shall be jointly and severally liable hereunder.

B. It is understood and agreed that for convenience the word "Lessee" and verbs and pronouns in the singular number and neuter gender are uniformly used throughout this Lease, regardless of the number, gender or fact of incorporation of the party who is, or of the parties who are, the actual Lessee or Lessees under this Agreement. In construing this Lease, if the context so requires, the singular pronoun shall be taken to mean and include the plural, the masculine, the feminine and the neuter, and that generally all grammatical changes shall be made, assumed and implied to make the provisions hereof apply equally to entities and individuals.

30. **RULES AND REGULATIONS:** Lessor, for the proper maintenance of the Premises, the rendering of good service thereon, and the providing of safety, order and cleanliness thereof, may make and enforce such rules and regulations as Lessor may reasonably deem necessary or appropriate for such purposes but not inconsistent with the covenants, terms and conditions of this Lease. Lessor's Rules and Regulations attached hereto as Exhibit "F" and the Health and Safety Guidelines for the Facility, prepared by Savage Corporation, in its capacity as the operator of the Facility, attached hereto as Exhibit "L" are acknowledged by Lessee as current and binding. Lessee reserves the right from time to time to modify the Health and Safety Guidelines, and shall provide a copy of such modified Health and Safety Guidelines to Lessor within thirty (30) days after Lessee's implementation thereof, which implementation shall not be subject to Lessor's review, consent, or approval. In addition, a final Facility Operation and Safety Plan shall be mutually approved prior to operation of the Facility.

31. **CAPTIONS AND PARTICULAR PROVISIONS:**

A. The captions in this Lease are for convenience only and do not in any way limit or amplify the provisions of this Lease.

B. If any term or provision of this Lease or the applications thereof to any person or circumstances shall, to any extent, be invalid or unenforceable, the remainder of this Lease or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable shall not be affected thereby and shall continue in full force and effect.

32. **NON-DISCRIMINATION:**

A. Lessee agrees that in the performance of this Lease it will not discriminate by segregation or otherwise against any person or persons because of sex, race, creed, age, color or national origin.

B. It is agreed that Lessee's non-compliance with the provisions of this clause shall constitute a Default of this Lease following the lapse of any applicable notice and cure periods without a cure. In the event of such noncompliance, Lessor may take appropriate action to enforce compliance, may terminate this Lease, or may pursue such other remedies as may be provided by law.

33. **NOTICES:** All notices hereunder may be delivered (personally or by reliable overnight courier) or mailed. If mailed, they shall be sent by certified or registered mail to the address set forth in Paragraph 1.M or to such other address as either party hereto may hereafter from time to time designate in writing. Notices sent by mail shall be deemed to have been given three (3) days after the date on which properly mailed, postage prepaid, certified mail, return receipt requested. Notices delivered by reliable overnight courier service shall be deemed to have been given one (1) business day after the date on which deposited with such overnight courier service, properly addressed to the address set forth in Paragraph 1.M or to such other address as either party hereto may hereafter from time to time designate in writing, with charges paid for next business day delivery. Lessee shall also provide information to Lessor regarding Lessee's billing address if it is different from the notice listed above. Lessee shall also provide emergency contact information to Lessor within thirty (30) days of this Lease going into effect and shall keep such information current throughout the Term of this Lease.

34. **ATTORNEY'S FEES AND COURT COSTS:** In case suit or action is instituted to enforce compliance with any of the terms of this Lease, the losing Party agrees to pay the prevailing Party a reasonable attorney's fee before or at trial or any appeal, together with all costs and expenses incurred in connection with such actions, including the reasonable cost of searching the records to determine the condition of title at the time suit is commenced.

35. **SUCCESSORS AND ASSIGNS:** All rights, remedies and liabilities herein given to or imposed upon either of the Parties hereto shall inure to the benefit of and bind the executors, administrators, successors and assigns of such Parties. Nothing herein shall or is intended to confer upon any person, other than the Parties and their respective successors and assigns, any rights, remedies, obligations or liabilities.

36. **WAIVER:** Lessor shall not be deemed to have waived any rights under this Lease unless the waiver is given in writing and signed by Lessor. No delay or omission on the part of Lessor in exercising any right shall operate as a waiver of the right or any other right. A waiver by Lessor of a provision of this Lease shall not prejudice or constitute a waiver of Lessor's right otherwise to demand strict compliance with that provision or any other provision of this Lease. No prior waiver by Lessor shall constitute a waiver of any of Lessor's rights or of any of Lessee's obligations as to any future transactions.

37. **TOTAL AGREEMENT:** This Lease and the MGA Agreement contain the entire agreement between the Parties. Each Party represents that no promises, representations or commitments have been made by the other as a basis for this agreement which have not been reduced to writing herein. No oral promises or representations shall be binding upon either Party, whether made in the past or to be made in the future, unless such promises or representations are reduced to writing in the form of a modification to this Lease executed with all necessary legal formalities by the Commission of the Port of Vancouver. This Lease shall be construed without regard to any presumption or other rule requiring construction against the Party causing this Lease to be drafted.

38. **PROVISION OF FINANCIAL INFORMATION:** Within twenty (20) days' notice, and/or upon reasonable request, Lessee shall provide Lessor with current financial information concerning Lessee or any assignee, sublessee or guarantor, including financial statements certified, reviewed or compiled by a certified public accountant, if available, or, in the absence thereof, a balance sheet and income statement and other up-to-date financial information certified by Chief Financial Officer or other appropriate officer of Lessee or such assignee, sublessee or guarantor, as applicable, all as requested by Lessor; provided however, that Lessor acknowledges that such financial information with regard to a non-public company is Confidential Information and is to be used and disclosed only to Lessor's management personnel, Lessor's management company, attorneys and accountants for Lessor's internal purposes and to third parties only for the purpose of financing, refinancing, or sale of any portion of the Premises, and then only with reasonable confidentiality restrictions.

This Paragraph 38 does not prohibit either Party from disclosing Confidential Information to the extent such disclosure is required by law. If either Party, or any person to whom either Party transmits Confidential Information pursuant to this Lease, becomes legally compelled to disclose any Confidential Information, including without limitation Confidential Information subject to the Washington Public Disclosure Act, then such Party will provide prompt notice to the other Party prior to any such disclosure so that the other Party may seek a protective

order or other appropriate remedy and/or waive compliance with the provisions of this Paragraph with respect to such disclosure. If such protective order or other remedy is not obtained, or the other Party waives compliance with the provisions of this Paragraph, then the first Party will furnish only that portion of Confidential Information that such Party is advised by written opinion of counsel is legally required and will exercise such Party's best efforts to cooperate with the other Party's efforts to obtain reasonable assurance that confidential treatment will be accorded Confidential Information.

39. **BROKERS:** Nothing contained in this Lease shall impose any obligation on Lessor to pay a commission or fee to any party unless specifically agreed to in writing. Lessee and Lessor each hereby agrees to indemnify, defend and hold the other harmless for, from and against any claim for a compensation or fee by any broker or agent engaged by such party.

40. **COUNTERPARTS:** This Lease may be signed in counterparts. All signatures taken together shall amount to the concurrence of all Parties. In that regard, a photostatic copy of any signature shall have the same effect as the original.

41. **NO OPTION BY SUBMISSION OF LEASE DRAFT:** The submission of this Lease for examination does not constitute a reservation of or option for the Premises to the prospective Lessee and this Lease shall become effective as a Lease only upon execution by both Lessor and Lessee.

42. **APPLICABLE LAW AND VENUE:** This agreement shall be governed by and construed in accordance with the laws of the State of Washington, and in the event of any litigation arising out of or relating to this Lease, the Parties hereto stipulate and agree that the venue of any such action shall be laid in Clark County, Washington.

IN WITNESS WHEREOF, the Parties hereto have signed this Lease as of the 23rd day of

July, 2013.

PORT OF VANCOUVER, Lessor

By: [Signature]
President

By: [Signature]
Vice President

By: [Signature]
Secretary

TESORO SAVAGE PETROLEUM
TERMINAL, LLC, Lessee

By: [Signature]
Title: AUTHORIZED REPRESENTATIVE

Approved as to form:

SCHWABE, WILLIAMSON & WYATT

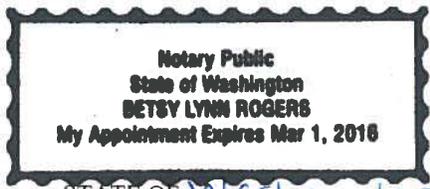
By: 

Alicia L. Lowe, Port Counsel

STATE OF WASHINGTON)
) ss.
County of Clark)

On this day personally appeared before me NANCY I. BAKER, GERALD T. OLIVER, and BRIAN WOLFE, all Commissioners of the PORT OF VANCOUVER, and to me known to be the individuals that executed the foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of said Port of Vancouver for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this 23rd day of July, 2013.



Betsy Lynn Rogers
Print Name Here: Betsy Lynn Rogers
NOTARY PUBLIC in and for the State of Washington
residing at Vancouver
My Commission Expires: March 1, 2016

STATE OF Washington)
) ss.
County of Clark)

Authorized Representative On this day personally appeared before me Curtis C. Dowd, to me known to be the Authorized Representative respectively of TESORO SAVAGE PETROLEUM TERMINAL LLC that executed the foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said limited liability company for the uses and purposes therein mentioned, and on oath stated that they are authorized to execute the said instrument on behalf of said Lessee.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal this 23rd day of July, 2013.



Betsy Lynn Rogers
Print Name Here: Betsy Lynn Rogers
NOTARY PUBLIC in and for the State of Washington
residing at Vancouver
My Commission Expires: March 1, 2016

EXHIBIT "A"

OUTLINE OF PREMISES LOCATION WITHIN THE OVERALL PORT PROPERTY

[attached]

Exhibit "A"

PDX\067855\189993\DHE\11710818.8

Tesoro Savage Vancouver Energy Distribution Terminal
Application No. 2013-01 Supplement

Section 2.2.2 - February 2014
Page 2-83.68

EXHIBIT "B-1"
PREMISES SITE OUTLINE

[attached]

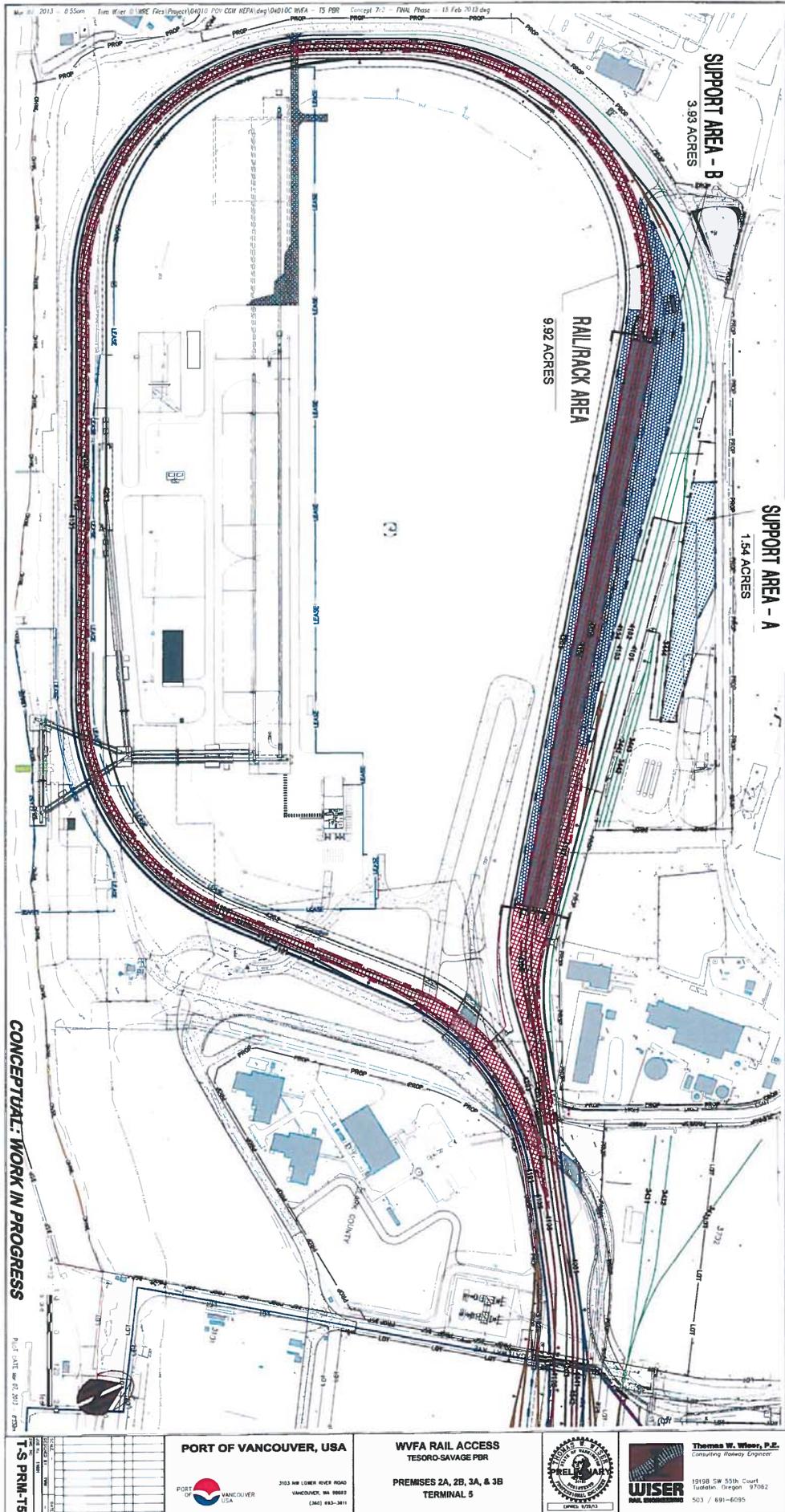


EXHIBIT B-1

EXHIBIT "B-2"

PREMISES SITE OUTLINE

[attached]

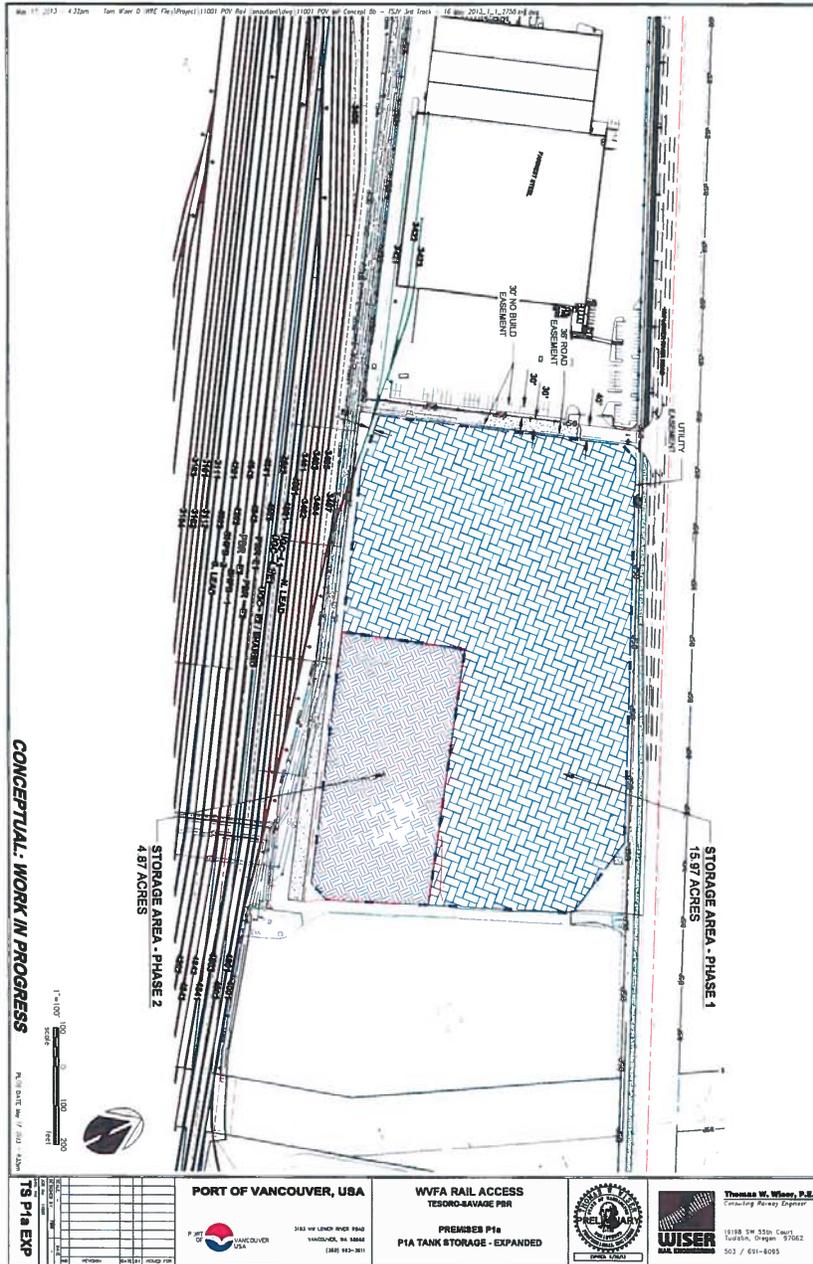


EXHIBIT B-2

EXHIBIT "B-3"
PREMISES SITE OUTLINE

[attached]

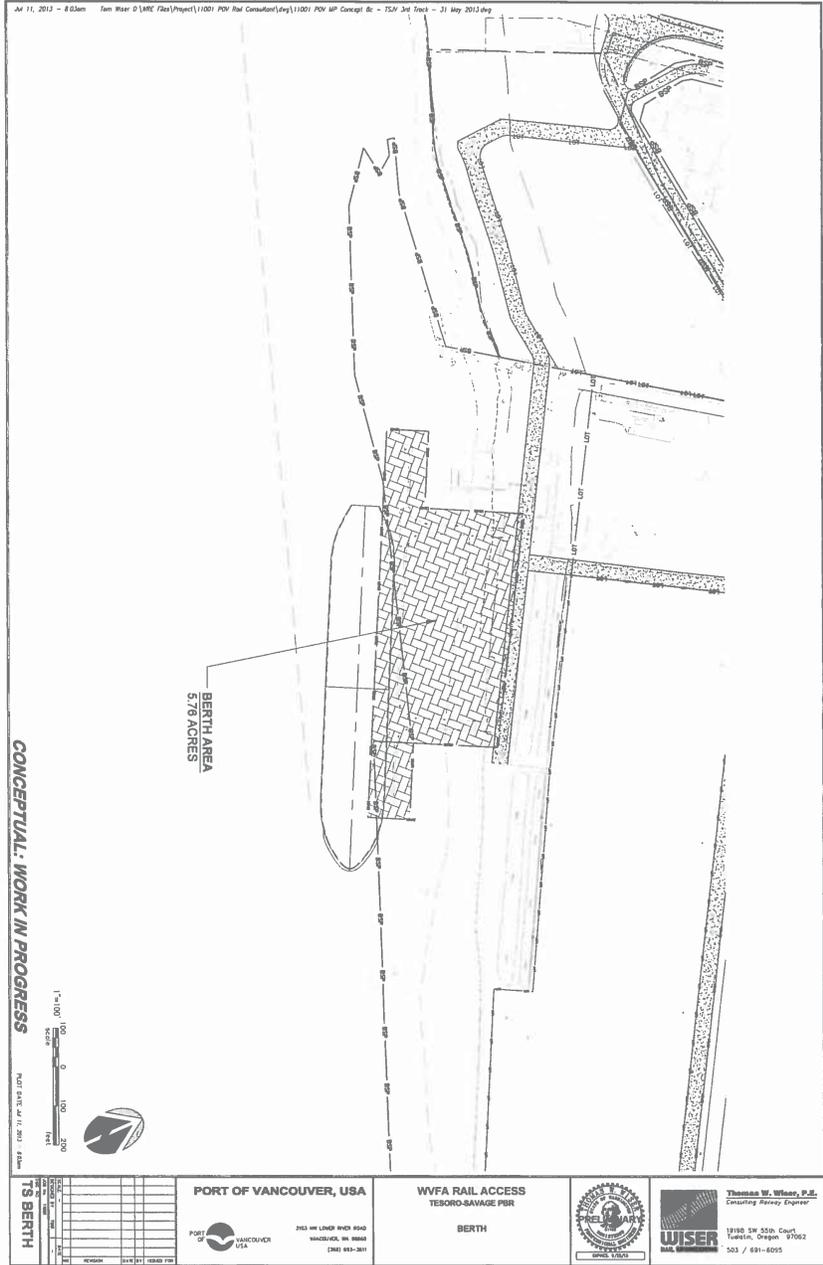


EXHIBIT B-3

EXHIBIT "C"

LEGAL DESCRIPTION

A portion (approximately as shown on Exhibits B-1, B-2, and B-3) of the following described real property:

3/31/09 ALCOA DEED (T-5)

PARCEL I

A TRACT OF LAND LOCATED IN SECTIONS 17, 18, 19 AND 20, TOWNSHIP 2 NORTH, RANGE 1 EAST, WILLAMETTE MERIDIAN, CLARK COUNTY, WASHINGTON. SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST NORTHEASTERN CORNER OF THAT PROPERTY CONVEYED TO VANCOUVER SMELTING AND INGOT, INC BY DEED RECORDED AS AUDITOR'S FILE 8706250115, RECORDS OF CLARK COUNTY WASHINGTON. SAID POINT BEING A 5/8" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "HILL LS 7591"

THENCE ALONG THE SOUTHERN LINES OF THAT PROPERTY CONVEYED TO THE PORT OF VANCOUVER AS DESCRIBED IN AUDITOR'S FILE 9206090248 THE FOLLOWING COURSES:

SOUTH 65°59'34" EAST, 861.82 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 62°05'21" EAST, 78.63 FEET A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 65°53'48" EAST, 278.45 FEET TO THE SOUTHWESTERN LINE OF THAT PROPERTY CONVEYED TO THE UNITED STATES OF AMERICA AS DESCRIBED IN AUDITOR'S FILE E36885;

THENCE ALONG SAID SOUTHWESTERN SOUTH 40°06'49" EAST, 9.21 FEET THE EASTERN LINE OF THAT PROPERTY CONVEYED TO ALCOA, INC. AS DESCRIBED IN AUDITOR'S FILE 3451521;

THENCE ALONG SAID EASTERN LINE SOUTH 23°47'45" WEST, 526.31 FEET;

THENCE ALONG THE SOUTHERN AND EASTERN LINES OF THOSE PROPERTIES DESCRIBED IN AUDITOR'S FILES 9609250325 AND 9506230321 THE FOLLOWING COURSES:

SOUTH 66°56'33" EAST, 61.43 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 22°18'35" WEST, 26.79 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 66°01'38" EAST, 546.86 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 25°14'59" WEST, 5.80 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 69°29'52" EAST, 1.06 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 24°56'09" WEST, 152.66 FEET TO A POINT OF NON-TANGENT CURVATURE WITH A 220.00 FEET RADIUS CURVE FROM WHICH A RADIAL LINE BEARS NORTH 07°47'59" EAST;

THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 19°29'02" (THE CHORD BEARS NORTH 88°03'28" EAST, 74.45 FEET) AN ARC DISTANCE OF 74.81 FEET;

THENCE NORTH 78°18'57" EAST, 61.62 FEET TO A POINT OF CURVATURE;

THENCE ALONG THE ARC OF A 220.00 FEET RADIUS CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 54°14'23" (THE CHORD BEARS NORTH 51°11'45" EAST, 200.58 FEET) AN ARC DISTANCE OF 208.27 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 24°04'34" EAST, 471.83 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591" AT A POINT OF CURVATURE;

THENCE ALONG THE ARC OF A 270.00 FEET RADIUS CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 38°56'34" (THE CHORD BEARS NORTH 04°36'17" EAST, 180.00 FEET) AN ARC DISTANCE OF 183.51 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG THE ARC OF A 330.00 FEET RADIUS CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 22°54'37" (THE CHORD BEARS NORTH 03°24'42" WEST, 131.08 FEET) AN ARC DISTANCE OF 131.95 FEET;

THENCE NORTH 08°05'38" EAST, 30.56 FEET TO THE SOUTHERN RIGHT-OF-WAY LINE OF LOWER RIVER ROAD AT A POINT OF NON-TANGENT CURVATURE WITH A 497.00 FEET RADIUS CURVE FROM WHICH A RADIAL LINE BEARS SOUTH 02°19'17" EAST;

THENCE ALONG SAID RIGHT-OF-WAY CURVE THROUGH A CENTRAL ANGLE OF 06°58'17" (THE CHORD BEARS SOUTH 88°50'08" EAST, 60.44 FEET) AN ARC DISTANCE OF 60.47 FEET;

THENCE ALONG THE WESTERN LINE OF THAT PROPERTY CONVEYED TO THE PORT OF VANCOUVER AS DESCRIBED IN AUDITOR'S FILE 9105240201 PARCEL 1A THE FOLLOWING COURSES:

SOUTH 08°05'03" WEST, 37.80 FEET TO A POINT OF NON-TANGENT CURVATURE WITH A 270.00 FEET RADIUS CURVE FROM WHICH A RADIAL LINE BEARS SOUTH 81°57'23" EAST;

THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 22°54'37" (THE CHORD BEARS SOUTH 03°24'41" EAST, 107.24 FEET) AN ARC DISTANCE OF 107.96 FEET TO A ½" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "OLSON 9025" AT A POINT OF REVERSE CURVATURE;

THENCE ALONG THE ARC OF A 330.00 FEET RADIUS CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 38°56'34" (THE CHORD BEARS SOUTH 04°36'17" WEST, 220.00 FEET) AN ARC DISTANCE OF 224.29 FEET;

THENCE SOUTH 24°04'34" WEST, 471.83 FEET TO A ½" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "OLSON 9025" AT A POINT OF CURVATURE;

THENCE ALONG THE ARC OF A 280.00 FEET RADIUS CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 36°12'35" (THE CHORD BEARS SOUTH 42°10'52" WEST, 174.02 FEET) AN ARC DISTANCE OF 176.95 FEET TO THE NORTHERN RIGHT-OF-WAY OF THE SPOKANE, PORTLAND AND SEATTLE RAILROAD AS DESCRIBED IN AUDITOR'S FILE E24906;

THENCE ALONG SAID RIGHT-OF-WAY LINE SOUTH 73°39'14" WEST, 507.82 FEET TO THE WESTERN LINE OF THE VAN ALMAN DONATION LAND CLAIM;

THENCE THEN ALONG SAID WESTERN LINE SOUTH 09°54'57" WEST, 497.01 FEET TO THE SOUTHERN RIGHT-OF-WAY LINE THE SPOKANE, PORTLAND AND SEATTLE RAILROAD;

THENCE ALONG SAID SOUTHERN RIGHT-OF-WAY NORTH 39°07'39" EAST, 468.36 FEET TO A POINT OF CURVATURE;

THENCE CONTINUING ALONG SAID RIGHT-OF-WAY ALONG THE ARC OF A 739.50 FEET RADIUS CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 33°02'42" (THE CHORD BEARS NORTH 55°39'00" EAST, 420.62 FEET) AN ARC DISTANCE OF 426.50 FEET TO A ½" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "OLSON 9025" AT ITS INTERSECTION WITH THE WESTERN LINE OF THAT PROPERTY CONVEYED TO CLARK COUNTY AS DESCRIBED IN AUDITOR'S FILE 9804030486;

THENCE ALONG THE WESTERN AND SOUTHERN LINES OF SAID CLARK COUNTY PROPERTY THE FOLLOWING COURSES:

SOUTH 04°28'45" WEST, 79.82 FEET TO A ½" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "OLSON 9025" AT A POINT OF NON-TANGENT CURVATURE WITH A

691.97 FEET RADIUS CURVE FROM WHICH A RADIAL LINE BEARS SOUTH 21°15'02" EAST;

THENCE ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 29°41'58" (THE CHORD BEARS SOUTH 53°53'59" WEST, 354.68 FEET) AN ARC DISTANCE OF 358.68 FEET;

THENCE SOUTH 39°03'00" WEST, 741.81 FEET TO A ½" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "OLSON 9025";

THENCE SOUTH 24°08'35" WEST, 28.79 FEET TO A ½" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "OLSON 9025";

THENCE SOUTH 89°38'19" EAST, 352.44 FEET TO A ½" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "OLSON 9025";

THENCE NORTH 82°45'01" EAST, 712.86 FEET TO THE WESTERN LINE OF THAT PROPERTY CONVEYED TO THE PORT OF VANCOUVER AS DESCRIBED IN AUDITOR'S FILE 9105240201 PARCEL 1B;

THENCE ALONG SAID WESTERN LINE SOUTH 35°02'02" WEST, 44.85 FEET;

THENCE CONTINUING ALONG SAID WESTERN LINE SOUTH 35°00'15" WEST, 749.59 FEET;

THENCE CONTINUING ALONG SAID WESTERN LINE SOUTH 35°00'15" WEST 1.05 FEET TO THE ORDINARY HIGH WATER LINE OF THE COLUMBIA RIVER;

THENCE ALONG THE ORDINARY HIGH WATER LINE THE FOLLOWING COURSES:

NORTH 89°29'12" WEST, 9.52 FEET;

THENCE NORTH 77°40'26" WEST, 16.60 FEET;

THENCE SOUTH 86°36'31" WEST, 77.49 FEET;

THENCE NORTH 78°50'38" WEST, 173.64 FEET;

THENCE NORTH 84°19'36" WEST, 254.87 FEET;

THENCE NORTH 76°30'55" WEST, 20.14 FEET;

THENCE NORTH 69°05'45" WEST, 310.36 FEET;

THENCE NORTH 73°25'50" WEST, 31.58 FEET;

THENCE NORTH 78°01'48" WEST, 41.07 FEET;

THENCE NORTH 75°14'34" WEST, 70.64 FEET;

THENCE NORTH 67°13'09" WEST, 106.03 FEET;
THENCE NORTH 85°08'56" WEST, 14.42 FEET;
THENCE NORTH 69°41'50" WEST, 102.24 FEET;
THENCE NORTH 62°47'21" WEST, 22.10 FEET;
THENCE NORTH 85°06'24" WEST, 12.19 FEET;
THENCE NORTH 78°40'23" WEST, 23.96 FEET;
THENCE NORTH 68°36'38" WEST, 11.78 FEET;
THENCE NORTH 54°35'29" WEST, 28.64 FEET;
THENCE NORTH 61°34'46" WEST, 105.07 FEET;
THENCE NORTH 70°03'25" WEST, 111.12 FEET;
THENCE NORTH 61°56'51" WEST, 18.49 FEET;
THENCE NORTH 66°35'10" WEST, 27.88 FEET;
THENCE NORTH 71°57'33" WEST, 28.64 FEET;
THENCE NORTH 61°44'43" WEST, 36.12 FEET;
THENCE NORTH 70°11'57" WEST, 27.01 FEET;
THENCE NORTH 75°26'06" WEST, 88.93 FEET;
THENCE NORTH 69°07'46" WEST, 82.68 FEET;
THENCE NORTH 85°00'29" WEST, 9.41 FEET;
THENCE NORTH 79°39'38" WEST, 24.20 FEET;
THENCE NORTH 71°31'12" WEST, 49.99 FEET;
THENCE NORTH 76°56'35" WEST, 34.63 FEET;
THENCE NORTH 79°53'56" WEST, 6.78 FEET;
THENCE NORTH 74°55'38" WEST, 53.64 FEET;
THENCE NORTH 73°16'30" WEST, 41.35 FEET;
THENCE NORTH 69°24'34" WEST, 52.13 FEET;

THENCE NORTH 62°17'46" WEST, 32.15 FEET;
THENCE NORTH 65°47'53" WEST, 33.52 FEET;
THENCE NORTH 63°32'11" WEST, 25.50 FEET;
THENCE NORTH 55°03'48" WEST, 52.98 FEET;
THENCE NORTH 34°13'21" WEST, 10.50 FEET;
THENCE NORTH 48°48'47" WEST, 8.46 FEET;
THENCE NORTH 67°23'10" WEST, 34.95 FEET;
THENCE NORTH 62°28'18" WEST, 21.35 FEET;
THENCE NORTH 60°53'29" WEST, 42.70 FEET;
THENCE NORTH 62°43'59" WEST, 61.76 FEET;
THENCE NORTH 47°54'15" WEST, 13.10 FEET;
THENCE NORTH 57°42'47" WEST, 34.21 FEET;
THENCE NORTH 45°30'34" WEST, 26.68 FEET;
THENCE NORTH 63°11'33" WEST, 91.74 FEET;
THENCE NORTH 63°52'03" WEST, 43.89 FEET;
THENCE NORTH 68°40'24" WEST, 45.31 FEET;
THENCE NORTH 63°18'56" WEST, 41.82 FEET;
THENCE NORTH 55°08'42" WEST, 40.63 FEET;
THENCE NORTH 65°23'25" WEST, 39.33 FEET;
THENCE NORTH 68°13'41" WEST, 36.75 FEET;
THENCE NORTH 59°46'47" WEST, 20.47 FEET;
THENCE NORTH 56°29'02" WEST, 23.33 FEET;
THENCE NORTH 73°15'43" WEST, 30.91 FEET;
THENCE NORTH 65°05'42" WEST, 34.79 FEET TO THE EASTERN LINE OF THAT
PROPERTY CONVEYED TO VANCOUVER SMELTING AND INGOT, INC AS
DESCRIBED IN AUDITOR'S FILE 8706250115;

THENCE ALONG THE EASTERN LINE OF SAID PROPERTY THE FOLLOWING COURSES:

NORTH 24°51'44" EAST, 19.90 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 24°51'44" EAST, 75.00 FEET;

THENCE SOUTH 67°02'30" EAST, 150.95 FEET;

THENCE SOUTH 24°24'13" WEST, 8.03 FEET;

THENCE SOUTH 65°32'25" EAST, 139.46 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 24°25'27" EAST, 190.47 FEET TO A BRASS SCREW IN LEAD;

THENCE SOUTH 65°26'27" EAST, 75.44 FEET;

THENCE NORTH 24°33'33" EAST, 16.47 FEET;

THENCE SOUTH 65°26'27" EAST, 3.23 FEET TO A BRASS SCREW IN LEAD;

THENCE NORTH 24°02'00" EAST, 8.74 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 65°37'38" EAST, 30.69 FEET;

THENCE NORTH 24°22'22" EAST, 43.42 FEET;

THENCE SOUTH 66°03'36" EAST, 202.10 FEET;

THENCE SOUTH 21°35'33" WEST, 53.64 FEET;

THENCE SOUTH 66°03'43" EAST, 337.03 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 24°23'48" EAST, 332.67 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 65°37'48" EAST, 491.35 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 24°34'33" WEST, 17.72 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 65°13'05" EAST, 25.00 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 23°39'31" EAST, 602.51 FEET;

THENCE NORTH 65°35'48" WEST, 483.30 FEET TO A SPINDLE;

THENCE NORTH 09°15'46" WEST, 56.18 FEET TO A SPINDLE;

THENCE NORTH 24°23'13" EAST, 214.67 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 65°27'24" WEST, 22.46 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 24°16'52" EAST, 40.03 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 65°35'26" WEST, 440.76 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 24°23'35" EAST, 253.74 FEET TO A BRASS SCREW IN LEAD;

THENCE SOUTH 65°35'08" EAST, 29.66 FEET TO A BRASS SCREW IN LEAD;

THENCE NORTH 19°44'44" WEST, 68.68 FEET;

THENCE NORTH 65°36'36" WEST, 109.69 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 24°23'37" EAST, 435.28 FEET TO THE POINT OF BEGINNING.

EXCEPTING THERE FROM:

COMMENCING AT THE MOST NORTHEASTERN CORNER OF THAT PROPERTY CONVEYED TO VANCOUVER SMELTING AND INGOT, INC BY DEED RECORDED AS AUDITOR'S FILE 8706250115, RECORDS OF CLARK COUNTY WASHINGTON. SAID POINT BEING A 5/8" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 15°22'35" EAST, 2,450.69 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591" AND THE TRUE POINT OF BEGINNING;

THENCE SOUTH 65°57'51" EAST, 137.31 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 24°06'06" WEST, 125.67 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 65°57'29" WEST, 137.25 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 24°04'31" EAST, 125.66 FEET TO THE POINT OF BEGINNING.

BEARINGS BASED ON THE WASHINGTON STATE PLANE COORDINATE SYSTEM OF 1983, SOUTH ZONE AND DISTANCES ARE AT GROUND.

PARCEL II

A TRACT OF LAND LOCATED IN SECTIONS 18 AND 19, TOWNSHIP 2 NORTH, RANGE 1 EAST, AND SECTION 13, TOWNSHIP 2 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN, CLARK COUNTY, WASHINGTON. SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST NORTHEASTERN CORNER OF THAT PROPERTY CONVEYED TO VANCOUVER SMELTING AND INGOT, INC BY DEED RECORDED AS AUDITOR'S FILE 8706250115, RECORDS OF CLARK COUNTY WASHINGTON. SAID POINT BEING A 5/8" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "HILL LS 7591"

THENCE NORTH 83°36'37" WEST, 2,411.16 FEET TO A POINT ON THE SOUTHERN LINE OF THE TIDEWATER TRACT BEING THE MOST NORTHERN NORTHWEST CORNER OF THAT PROPERTY CONVEYED TO RUSSELL TOWBOAT AND MOORAGE CO. AS DESCRIBED IN AUDITOR'S FILE 9501260058 AND THE TRUE POINT OF BEGINNING;

THENCE ALONG THE WESTERN LINE OF SAID RUSSELL PROPERTY THE FOLLOWING COURSES:

SOUTH 25°51'55" WEST, 511.44 FEET;

THENCE SOUTH 65°53'18" EAST, 426.16 FEET;

THENCE SOUTH 49°01'37" WEST, 182.34 FEET;

THENCE SOUTH 49°01'33" WEST, 782.97 FEET;

THENCE NORTH 65°32'10" WEST, 53.72 FEET;

THENCE NORTH 08°41'22" WEST, 212.96 FEET;

THENCE NORTH 66°14'51" WEST, 109.99 FEET TO THE SOUTHERN MOST CORNER OF THAT PROPERTY CONVEYED TO VANALCO INC AS DESCRIBED AS PARCEL 1 AUDITOR'S FILE 9501260083;

THENCE ALONG THE EASTERN AND NORTHERN BOUNDARY OF SAID VANALCO PROPERTY THE FOLLOWING COURSES:

NORTH 23°44'52" EAST, 93.21 FEET;

THENCE SOUTH 72°34'32" EAST, 28.67 FEET;

THENCE SOUTH 78°41'13" EAST, 29.76 FEET;
THENCE SOUTH 88°59'26" EAST, 29.49 FEET;
THENCE NORTH 84°48'34" EAST, 28.92 FEET;
THENCE NORTH 68°13'10" EAST, 40.09 FEET;
THENCE NORTH 40°50'00" EAST, 30.39 FEET;
THENCE NORTH 27°26'22" EAST, 49.86 FEET;
THENCE SOUTH 64°08'05" EAST, 96.65 FEET;
THENCE NORTH 25°51'55" EAST, 376.04 FEET;
THENCE NORTH 65°53'18" WEST, 993.55 FEET TO THE SOUTHEASTERN LINE OF THAT PROPERTY CONVEYED TO TIDEWATER ENVIRONMENTAL SERVICES, INC AS DESCRIBED IN AUDITOR'S FILE 9104290287;
THENCE ALONG SAID SOUTHEASTERN LINE NORTH 23°15'04" EAST, 606.83 FEET TO A FOUND ½" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "OLSON 9025";
THENCE ALONG THE SOUTHERN LINE OF SAID TIDEWATER TRACT SOUTH 65°25'50" EAST, 1,021.02 FEET TO THE POINT OF BEGINNING.

SAID TRACT CONTAINS 19.87 ACRES MORE OR LESS.

BEARINGS BASED ON THE WASHINGTON STATE PLANE COORDINATE SYSTEM OF 1983, SOUTH ZONE AND DISTANCES ARE AT GROUND.

PARCEL II-A

AN EASEMENT FOR INGRESS, EGRESS AND UTILITIES AS DISCLOSED UNDER AUDITOR'S FILE NO. 9501260050 AND 9501260056.

PARCEL III

A TRACT OF LAND LOCATED IN NORTHEAST ONE-QUARTER OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 1 EAST, WILLAMETTE MERIDIAN, CLARK COUNTY, WASHINGTON. SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST NORTHEASTERN CORNER OF THAT PROPERTY CONVEYED TO VANCOUVER SMELTING AND INGOT, INC BY DEED RECORDED AS AUDITOR'S FILE 8706250115, RECORDS OF CLARK COUNTY WASHINGTON. SAID POINT BEING A 5/8" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 15°22'35" EAST, 2,450.69 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591" AND THE TRUE POINT OF BEGINNING;

THENCE SOUTH 65°57'51" EAST, 137.31 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 24°06'06" WEST, 125.67 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 65°57'29" WEST, 137.25 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE NORTH 24°04'31" EAST, 125.66 FEET TO THE POINT OF BEGINNING.

BEARINGS BASED ON THE WASHINGTON STATE PLANE COORDINATE SYSTEM OF 1983, SOUTH ZONE AND DISTANCES ARE AT GROUND.

PARCEL IV

AN EASEMENT FOR PLACEMENT AND MAINTENANCE OF A FENCE AND AS DISCLOSED BY EASEMENT AGREEMENT RECORDED UNDER AUDITOR'S FILE NO. 9005240083.

PARCEL V

AN EASEMENT FOR ACCESS TO GROUNDWATER SAMPLING WELLS AS DISCLOSED BY EASEMENT AGREEMENT RECORDED UNDER AUDITOR'S FILE NO. 9506230325.

PARCEL VI

AN EASEMENT FOR INGRESS, EGRESS AND INSTALLATION AND MAINTENANCE OF UTILITIES AS DISCLOSED BY EASEMENT AGREEMENT RECORDED UNDER AUDITOR'S FILE NO. 9506230327.

PARCEL VII

AN EASEMENT FOR ACCESS AS DISCLOSED BY EASEMENT AGREEMENT UNDER AUDITOR'S FILE NO. 9609250326.

PARCEL VIII

AN EASEMENT FOR INGRESS, EGRESS AND INSTALLATION AND MAINTENANCE OF UTILITIES AS DISCLOSED BY EASEMENT AGREEMENT RECORDED UNDER AUDITOR'S FILE NO. 9804030488.

PARCEL IX

EASEMENTS FOR THE USE OF VARIOUS SHARED FACILITIES, ACCESS THERETO AND OTHER PURPOSES AS DISCLOSED BY DECLARATION OF EASEMENTS, COVENANTS, CONDITIONS AND RESTRICTIONS AND SHARED FACILITIES AGREEMENT RECORDED UNDER AUDITOR'S FILE NO. 8706250113, AS AMENDED BY INSTRUMENT RECORDED AT AUDITOR'S FILE NO. 9501260085

1-29-09 EVERGREEN DEED (T-5)

PARCEL I:

THOSE PORTIONS OF THE JOHN H. MATHEWS DONATION LAND CLAIM AND PATRICK MARKEYS DONATION LAND CLAIM SITUATED IN SECTIONS 18 AND 19, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN CLARK COUNTY, WASHINGTON, THE POINT OF BEGINNING BEING THE SECTION CORNER COMMON TO SECTIONS 17, 18, 19, AND 20 IN SAID TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, THAT IS MONUMENTED WITH A 1-1/2" IRON PIPE SIZE PROJECTING 5.6 FEET ABOVE GROUND; SAID SECTION CORNER BEING SOUTH 02°30'12" WEST 273.26 FEET FROM A DONATION LAND CLAIM CORNER COMMON TO THE PATRICK MARKEYS AND H. VAN ALMA DONATION LAND CLAIM THAT IS MONUMENTED WITH A 1-1/2" IRON PIPE SIZE PROJECTING 10.6 FEET ABOVE GROUND; SAID PORTIONS MORE PARTICULARLY DESCRIBED AS A SINGLE PARCEL AS FOLLOWS:

(THE FOLLOWING COURSES ARE ON A GRID BEARING WASHINGTON STATE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983. A SCALE AND ELEVATION FACTOR OF 1.000049 HAS BEEN APPLIED TO THE MEASURED FIELD DISTANCES.)

BEGINNING AT SAID SECTION CORNER; THENCE NORTH 65°35'57" WEST 2013.30 FEET TO A 5/8" IRON ROD WITH A PLASTIC CAP AS THE TRUE POINT OF BEGINNING, SAID TRUE POINT OF BEGINNING BEING SOUTH 41°24'54" WEST 439.18 FEET FROM THE BONNEVILLE POWER ADMINISTRATION SUBSTATION SITE MOST NORTHERLY CORNER AND HENDRICKSON DONATION LAND CLAIM CORNER; THENCE SOUTH 24°23'36" WEST 435.25 FEET ALONG THE WEST SIDE OF A WOVEN WIRE FENCE TO A 5/8" IRON ROD WITH A PLASTIC CAP; THENCE SOUTH 65°27'02" EAST 109.72 FEET ALONG A WOVEN WIRE FENCE TO A 5/8" IRON ROD WITH A PLASTIC CAP; THENCE SOUTH 19°56'22" EAST 68.47 FEET ALONG A WOVEN WIRE FENCE TO A LEADED BRASS SCREW SET IN CONCRETE; THENCE NORTH 65°32'35" WEST 29.68 FEET TO A LEADED BRASS SCREW SET IN CONCRETE; THENCE SOUTH 24°22'38" WEST 253.80 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE SOUTH 65°35'42" EAST 440.80 FEET TO A 5/8" IRON ROD WITH A PLASTIC CAP; THENCE SOUTH 24°22'01" WEST 40.01 FEET TO A 5/8" IRON ROD WITH A PLASTIC CAP; THENCE SOUTH 65°29'21" EAST 22.49 FEET TO A 5/8" IRON ROD WITH A PLASTIC CAP; THENCE SOUTH 24°22'50" WEST 214.71 FEET TO A 5/8" STEEL PIN WITH BEVEL GEAR TOP; THENCE SOUTH 09°14'16" EAST 56.06 FEET TO STEEL PIN WITH BEVEL GEAR TOP; THENCE SOUTH 65°35'49" EAST 483.24 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE SOUTH 23°38'23" WEST 602.58 FEET TO A 5/8" IRON ROD WITH A PLASTIC CAP; THENCE NORTH 65°18'33" WEST 25.00 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE NORTH 24°28'09" EAST 17.77 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE NORTH 65°37'47" WEST 491.32 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE SOUTH 24°24'00" WEST 332.70 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE NORTH 66°02'32" WEST 337.10 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE NORTH

21°38'52" EAST 53.65 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE NORTH 63°16'23" WEST 202.63 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE SOUTH 24°02'56" WEST 53.17 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE NORTH 65°57'05" WEST 30.63 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE SOUTH 23°57'32" WEST 8.74 FEET TO A LEADED BRASS SCREW; THENCE NORTH 66°02'28" WEST 3.23 FEET TO A POINT INSIDE BLDG. 36A OPPOSITE THE NORTHWESTERLY CORNER OF BLDG. 36; THENCE SOUTH 23°57'32" WEST 16.63 FEET TO A POINT NORTHWESTERLY OF THE SOUTHEASTERLY CORNER OF BLDG. 36A; THENCE NORTH 65°18'59" WEST 75.21 FEET TO A LEADED BRASS SCREW; THENCE SOUTH 24°35'26" WEST 190.46 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE NORTH 66°33'49" WEST 139.52 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP BY THE NORTHERLY GATEPOST; THENCE NORTH 25°43'26" EAST 8.01 FEET TO AN INSIDE FENCE CORNER AND A 5/8" IRON ROD WITH PLASTIC CAP; THENCE NORTH 66°06'29" WEST 151.08 FEET ALONG A WOVEN WIRE FENCE TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE SOUTH 24°50'40" WEST 74.95 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE SOUTH 24°50'40" WEST 211.30 FEET, MORE OR LESS, TO THE POINT OF INTERSECTION WITH THE CALCULATED JOHN H. MATHEWS DONATION LAND CLAIM LINE WHICH IS NORTH 65°03'32" WEST 1317.02 FEET FROM THE SOUTHEAST CORNER THEREOF; THENCE NORTH 65°03'32" WEST 868.86 FEET, MORE OR LESS, ALONG SAID DONATION LAND CLAIM TO A POINT SOUTH 65°03'32" EAST 1251.08 FEET FROM THE SOUTHWEST CORNER THEREOF; THENCE NORTH 10°35'57" EAST 254.68 FEET, MORE OR LESS, TO A 5/8" IRON ROD WITH PLASTIC CAP; THENCE NORTH 10°35'57" EAST 257.38 FEET TO A 5/8" IRON ROD WITH A PLASTIC CAP ADJACENT TO A WOVEN WIRE FENCE; THENCE NORTH 10°34'25" EAST 526.92 FEET ALONG A WOVEN WIRE FENCE TO A LEADED BRASS SCREW AT A CORNER FENCE POST AND ANGLE POINT OF THE WOVEN WIRE FENCE; THENCE NORTH 23°49'02" EAST 269.16 FEET ALONG A WOVEN WIRE FENCE TO A 5/8" IRON ROD WITH PLASTIC CAP AT A WOVEN WIRE FENCE CORNER; THENCE NORTH 24°39'37" EAST 461.19 FEET TO A U.S.C.E. MONUMENT MARKED "VI-8"; THENCE NORTH 64°22'38" EAST 360.64 FEET TO A U.S.C.E. MONUMENT MARKED "VI-7"; THENCE ALONG A 1175.77 FOOT RADIUS CURVE RIGHT 378.54 FEET WHOSE LONG CHORD BEARS NORTH 75°46'37" EAST 376.91 FEET TO A U.S.C.E. MONUMENT MARKED "VI-6"; THENCE NORTH 29°14'26" EAST 135.35 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP AT A POINT ON THE CURVE OF THE RIGHT OF WAY LINE OF CROWLEY MARITIME CORP. ACCESS ROAD; THENCE ON A 117.00 FOOT RADIUS CURVE TO THE LEFT ALONG SAID RIGHT OF WAY LINE 66.51 FEET, WHOSE LONG CHORD BEARS NORTH 59°03'39" EAST 65.62 FEET TO A 'PK' NAIL AND SHINER MARKING THE POINT OF REVERSE CURVE OF A 50.00 FOOT RADIUS CURVE TO THE RIGHT; THENCE ON SAID 50.00 FOOT RADIUS CURVE TO THE RIGHT ALONG SAID RIGHT OF WAY LINE 71.74 FEET, WHOSE LONG CHORD BEARS NORTH 87°15'17" EAST 65.74 FEET TO A "PK" NAIL AND SHINER MARKING THE BEGINNING OF CURVE ALONG SAID RIGHT OF WAY LINE; THENCE SOUTH 52°38'39" EAST 268.18 FEET TO A 5/8" IRON ROD WITH PLASTIC CAP TO A POINT OF TANGENCY OF A CURVE TO THE LEFT ON THE ACCESS ROAD TO THE HEREIN DESCRIBED PARCEL; THENCE NORTH 37°25'25" EAST 32.03 FEET ACROSS SAID RIGHT OF WAY TO THE POINT OF

TANGENCY ON THE NORTHERLY RIGHT OF WAY LINE OF SAID ROAD TO A 5/8" IRON ROD WITH A PLASTIC CAP; THENCE SOUTH 65°35'19" EAST 562.06 FEET TO THE TRUE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL.

PARCEL II:

AN UNDIVIDED 55% INTEREST IN THE FOLLOWING DESCRIBED PROPERTY:

(THE FOLLOWING COURSES ARE ON A GRID BEARING WASHINGTON STATE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983. A SCALE AND ELEVATION FACTOR OF 1.000049 HAS BEEN APPLIED TO THE MEASURED FIELD DISTANCES.)

A PORTION OF THE PATRICK MARKEYS DONATION LAND CLAIM IN SECTION 19, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN CLARK COUNTY, WASHINGTON;

BEGINNING AT THE SECTION CORNER COMMON TO SECTIONS 17, 18, 19, AND 20; THENCE SOUTH 33°41'06" WEST 1907.59 FEET TO THE TRUE POINT OF BEGINNING, SAID POINT ALSO BEING THE NORTHEASTERLY CORNER OF THAT TRACT CONVEYED TO VANCOUVER SMELTING AND INGOT, INC., DESCRIBED AS A SANITARY SEWER TREATMENT PLANT IN SCHEDULE B-6 IN AUDITOR'S FILE NO. 8706250115, CLARK COUNTY RECORDS; THENCE SOUTH 24°08'30" WEST ALONG THE EAST LINE OF SAID SEWER PLANT PARCEL A DISTANCE OF 125.67 FEET TO THE SOUTH LINE THEREOF; THENCE NORTH 65°57'05" WEST ALONG THE SOUTH TINE OF SAID SEWER PLANT PARCEL A DISTANCE OF 137.25 FEET TO THE WEST LINE THEREOF; THENCE NORTH 24°04'55" EAST ALONG THE WEST LINE OF SAID SEWER PLANT PARCEL A DISTANCE OF 125.66 FEET TO THE NORTH LINE THEREOF; THENCE SOUTH 65°57'19" EAST ALONG THE NORTH LINE OF SAID SEWER PLANT PARCEL A DISTANCE OF 137.38 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL III:

A PARCEL OF PROPERTY IN THE JOHN MATHEWS DONATION LAND CLAIM AND THE WILLIAM HENDRICKSON DONATION LAND CLAIM IN THE SOUTHEAST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 1 WEST AND THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN IN CLARK COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

(THE FOLLOWING COURSES ARE ON A GRID BEARING WASHINGTON STATE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983. A SCALE AND ELEVATION FACTOR OF 1.000049 HAS BEEN APPLIED TO THE MEASURED FIELD DISTANCES.)

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN, SAID

NORTHEAST CORNER ALSO BEING THE NORTHEAST CORNER OF THE WILLIAM HATTEN DONATION LAND CLAIM, THE NORTH LINE OF SAID HATTEN DONATION LAND CLAIM BEARING SOUTH 69°29'19" WEST; THENCE SOUTH 20°09'51" EAST 6616.90 FEET TO "A LINE" STATION 10 + 55.06, 75.00 FEET RIGHT, AS PER WSDH PLANS FOR SR 501, VANCOUVER LAKE TO PIONEER AVENUE IN RIDGEFIELD, APPROVED MAY 17, 1966; THENCE SOUTH 36°57'49" WEST PARALLEL WITH SAID "A LINE" AND A SOUTHWESTERLY EXTENSION THEREOF, 298.85 FEET TO THE CENTERLINE OF LOWER RIVER ROAD; THENCE SOUTH 36°57'49" WEST ALONG THE SOUTHEASTERLY LINE OF THAT TRACT CONVEYED TO TIDEWATER ENVIRONMENTAL SERVICES, INC. BY DEED RECORDED UNDER AUDITOR'S FILE NO. 9104290287 OF CLARK COUNTY RECORDS 100.87 FEET TO A 225.00 FOOT RADIUS CURVE TO THE RIGHT WITH A TANGENT BEARING OF SOUTH 81°48'57" WEST INTO SAID 225.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 225.00 FOOT RADIUS CURVE TO THE RIGHT 40.00 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE NORTH 88°00'00" WEST 302.26 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE SOUTH 89°29'56" WEST 11.39 FEET TO A 285.00 FOOT RADIUS CURVE TO THE LEFT WITH A TANGENT BEARING OF SOUTH 89°20'25" WEST INTO SAID 285.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 285.00 FOOT RADIUS CURVE TO THE LEFT 200.52 FEET; THENCE SOUTH 49°01'27" WEST ALONG SAID SOUTHEASTERLY LINE 488.75 FEET TO AN ANGLE POINT IN SAID TIDEWATER TRACT; THENCE NORTH 65°25'56" WEST ALONG THE SOUTHERLY LINE OF SAID TIDEWATER TRACT 645.61 FEET; THENCE SOUTH 25°51'49" WEST LEAVING SAID SOUTHERLY LINE 598.92 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 25°51'49" WEST 376.06 FEET; THENCE NORTH 64°08'11" WEST 96.65 FEET; THENCE SOUTH 27°26'16" WEST 49.86 FEET; THENCE SOUTH 40°49'54" WEST 30.39 FEET; THENCE SOUTH 68°13'04" WEST 40.09 FEET; THENCE SOUTH 84°48'28" WEST 28.92 FEET; THENCE NORTH 88°59'32" WEST 29.49 FEET; THENCE NORTH 78°41'19" WEST 29.76 FEET; THENCE NORTH 72°34'38" WEST 28.67 FEET; THENCE SOUTH 23°44'46" WEST 93.21 FEET; THENCE NORTH 66°15'14" WEST 727.49 FEET TO THE SOUTHEASTERLY LINE OF SAID TIDEWATER TRACT; THENCE NORTH 23°14'58" EAST ALONG SAID SOUTHEASTERLY LINE 614.15 FEET TO A POINT WHICH BEARS NORTH 65°53'24" WEST FROM THE TRUE POINT OF BEGINNING; THENCE SOUTH 65°53'24" EAST 993.60 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL IV:

A PARCEL OF PROPERTY 40.00 FEET WIDE BEING 20.00 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE IN THE JOHN MATHEWS DONATION LAND CLAIM AND THE WILLIAM HENDRICKSON DONATION LAND CLAIM IN THE SOUTHEAST QUARTER OF SECTION 13 AND THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 NORTH, RANGE 1 WEST AND THE SOUTH HALF OF SECTION 18 AND THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN IN CLARK COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

(THE FOLLOWING COURSES ARE ON A GRID BEARING WASHINGTON STATE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983. A SCALE AND ELEVATION FACTOR OF 1.000049 HAS BEEN APPLIED TO THE MEASURED FIELD DISTANCES.)

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN, SAID NORTHEAST CORNER ALSO BEING THE NORTHEAST CORNER OF THE WILLIAM HATTEN DONATION LAND CLAIM, THE NORTH LINE OF SAID HATTEN DONATION LAND CLAIM BEARING SOUTH 69°29'19" WEST; THENCE SOUTH 20°09'51" EAST 6616.90 FEET TO "A LINE" STATION 10 + 55.06, 75.00 FEET RIGHT, AS PER WSDH PLANS FOR SR 501, VANCOUVER LAKE TO PIONEER AVENUE IN RIDGEFIELD, APPROVED MAY 17, 1966; THENCE SOUTH 36°57'49" WEST PARALLEL WITH SAID "A LINE" AND A SOUTHWESTERLY EXTENSION THEREOF, 298.85 FEET TO THE CENTERLINE OF LOWER RIVER ROAD; THENCE SOUTH 36°57'49" WEST ALONG THE SOUTHEASTERLY LINE OF THAT TRACT CONVEYED TO TIDEWATER ENVIRONMENTAL SERVICES, INC. BY DEED RECORDED UNDER AUDITOR'S FILE NO. 9104290287 OF CLARK COUNTY RECORDS 100.87 FEET TO A 225.00 FOOT RADIUS CURVE TO THE RIGHT WITH A TANGENT BEARING OF SOUTH 81°48'57" WEST INTO SAID 225.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 225.00 FOOT RADIUS CURVE TO THE RIGHT 40.00 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE NORTH 88°00'00" WEST 302.26 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE SOUTH 89°29'56" WEST 11.39 FEET TO A 285.00 FOOT RADIUS CURVE TO THE LEFT WITH A TANGENT BEARING OF SOUTH 89°20'25" WEST INTO SAID 285.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 285.00 FOOT RADIUS CURVE TO THE LEFT 200.52 FEET; THENCE SOUTH 49°01'27" WEST ALONG SAID SOUTHEASTERLY LINE 488.75 FEET TO AN ANGLE POINT IN SAID TIDEWATER TRACT; THENCE NORTH 65°25'56" WEST ALONG THE SOUTHERLY LINE OF SAID TIDEWATER PARCEL 645.61 FEET; THENCE LEAVING SAID SOUTHERLY LINE SOUTH 25°51'49" WEST 974.98 FEET; THENCE NORTH 64°08'11" WEST 96.65 FEET; THENCE SOUTH 27°26'16" WEST 49.86 FEET; THENCE SOUTH 40°49'54" WEST 30.39 FEET; THENCE SOUTH 68°13'04" WEST 40.09 FEET; THENCE SOUTH 84°48'28" WEST 28.92 FEET; THENCE NORTH 88°59'32" WEST 29.49 FEET; THENCE NORTH 78°41'19" WEST 29.76 FEET; THENCE NORTH 72°34'38" WEST 28.67 FEET; THENCE SOUTH 23°44'46" WEST 93.21 FEET; THENCE NORTH 66°15'14" WEST 541.49 FEET TO A DRAINAGE PIPE AND THE TRUE POINT OF BEGINNING; THENCE SOUTH 23°35'14" WEST ALONG SAID PIPE 221.96 FEET TO THE NORTHEAST BANK OF THE COLUMBIA RIVER AND THE END OF THE ABOVE DESCRIBED CENTERLINE.

PARCEL V:

A PARCEL OF PROPERTY IN THE JOHN MATHEWS DONATION LAND CLAIM AND THE WILLIAM HENDRICKSON DONATION LAND CLAIM IN THE SOUTHEAST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 1 WEST AND THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 1 EAST AND

THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN IN CLARK COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

(THE FOLLOWING COURSES ARE ON A GRID BEARING WASHINGTON STATE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983. A SCALE AND ELEVATION FACTOR OF 1.000049 HAS BEEN APPLIED TO THE MEASURED FIELD DISTANCES.)

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN, SAID NORTHEAST CORNER ALSO BEING THE NORTHEAST CORNER OF THE WILLIAM HATTEN DONATION LAND CLAIM, THE NORTH LINE OF SAID HATTEN DONATION LAND CLAIM BEARING SOUTH 69°29'19" WEST; THENCE SOUTH 20°09'51" EAST 6616.90 FEET TO "A LINE" STATION 10 + 55.06, 75.00 FEET RIGHT, AS PER WSDH PLANS FOR SR 501, VANCOUVER LAKE TO PIONEER AVENUE IN RIDGEFIELD, APPROVED MAY 17, 1966; THENCE SOUTH 36°57'49" WEST, PARALLEL WITH SAID "A LINE" AND A SOUTHWESTERLY EXTENSION THEREOF, 298.85 FEET TO THE CENTERLINE OF LOWER RIVER ROAD; THENCE SOUTH 36°57'49" WEST ALONG THE SOUTHEASTERLY LINE OF THAT TRACT CONVEYED TO TIDEWATER ENVIRONMENTAL SERVICES, INC. BY DEED RECORDED UNDER AUDITOR'S FILE NO. 9104290287 OF CLARK COUNTY RECORDS 100.87 FEET TO A 225.00 FOOT RADIUS CURVE TO THE RIGHT WITH A TANGENT BEARING OF SOUTH 81°48'57" WEST INTO SAID 225.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 225.00 FOOT RADIUS CURVE TO THE RIGHT 40.00 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE NORTH 88°00'00" WEST 302.26 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE SOUTH 89°29'56" WEST 11.39 FEET TO A 285.00 FOOT RADIUS CURVE TO THE LEFT WITH A TANGENT BEARING OF SOUTH 89°20'25" WEST INTO SAID 285.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 285.00 FOOT RADIUS CURVE TO THE LEFT 200.52 FEET; THENCE SOUTH 49°01'27" WEST ALONG SAID SOUTHEASTERLY LINE (LINE REFERRED TO AS LINE "B" FROM HEREON) 488.75 FEET TO AN ANGLE POINT IN SAID TIDEWATER TRACT; THENCE NORTH 65°25'56" WEST ALONG THE SOUTHERLY LINE OF SAID TIDEWATER TRACT 645.61 FEET; THENCE SOUTH 25°51'49" WEST LEAVING SAID SOUTHERLY LINE 834.08 FEET; THENCE SOUTH 68°51'19" EAST 239.65 FEET; THENCE SOUTH 64°16'05" EAST 52.04 FEET TO THE SOUTHWESTERLY EXTENSION OF SAID LINE "B" AND THE TRUE POINT OF BEGINNING; THENCE SOUTH 64°16'05" EAST 112.23 FEET; THENCE SOUTH 56°01'08" EAST 115.94 FEET; THENCE SOUTH 51°08'50" EAST 320.70 FEET; THENCE SOUTH 28°12'11" EAST 86.38 FEET; THENCE SOUTH 79°25'35" EAST 24.62 FEET TO THE WESTERLY LINE OF THAT TRACT CONVEYED TO VANCOUVER SMELTING AND INGOT, INC. (AS REFERRED TO IN SCHEDULE A) BY DEED RECORDED UNDER AUDITOR'S FILE NO. 8706250115 OF CLARK COUNTY RECORDS; THENCE SOUTH 10°34'25" WEST ALONG SAID WESTERLY LINE 234.86 FEET (HILL RECORD OF SURVEY, BOOK 22, PAGE 154 SOUTH 09°00'40" WEST); THENCE SOUTH 10°35'57" WEST ALONG SAID WESTERLY LINE 216.41 FEET (HILL RECORD OF SURVEY, BOOK 22, PAGE 154 SOUTH 09°00'40"

WEST); THENCE NORTH 26°15'16" WEST 72.91 FEET; THENCE NORTH 06°24'44" WEST 60.47 FEET; THENCE NORTH 14°30'34" EAST 218.85 FEET; THENCE NORTH 00°03'06" WEST 106.25 FEET; THENCE NORTH 28°12'11" WEST 61.91 FEET; THENCE NORTH 51°08'50" WEST 310.89 FEET; THENCE NORTH 56°01'08" WEST 111.36 FEET; THENCE NORTH 64°16'05" WEST 126.57 FEET TO THE SOUTHWESTERLY EXTENSION OF SAID LINE "B"; THENCE NORTH 49°01'27" EAST ALONG SAID SOUTHWESTERLY EXTENSION 43.55 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL VI:

AN EASEMENT FOR MAINTENANCE, REPAIR, REPLACEMENT, OPERATION AND REMOVAL OF A PIPELINE OVER THE FOLLOWING DESCRIBED PROPERTY:

A PARCEL OF PROPERTY IN THE JOHN MATHEWS DONATION LAND CLAIM AND THE WILLIAM HENDRICKSON DONATION LAND CLAIM IN THE SOUTHEAST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 1 WEST AND THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 1 EAST AND THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN IN CLARK COUNTY, WASHINGTON DESCRIBED AS FOLLOWS:

(THE FOLLOWING COURSES ARE ON A GRID BEARING WASHINGTON STATE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983. A SCALE AND ELEVATION FACTOR OF 1.000049 HAS BEEN APPLIED TO THE MEASURED FIELD DISTANCES.)

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN, SAID NORTHEAST CORNER ALSO BEING THE NORTHEAST CORNER OF THE WILLIAM HATTEN DONATION LAND CLAIM, THE NORTH LINE OF SAID HATTEN DONATION LAND CLAIM BEARING SOUTH 69°29'19" WEST; THENCE SOUTH 20°09'51" EAST 6616.90 FEET TO "A LINE" STATION 10 + 55.06, 75.00 FEET RIGHT, AS PER WSDH PLANS FOR SR 501, VANCOUVER LAKE TO PIONEER AVENUE IN RIDGEFIELD, APPROVED MAY 17, 1966; THENCE SOUTH 36°57'49" WEST PARALLEL WITH SAID "A LINE" AND A SOUTHWESTERLY EXTENSION THEREOF, 298.85 FEET TO THE CENTERLINE OF LOWER RIVER ROAD; THENCE SOUTH 36°57'49" WEST ALONG THE SOUTHEASTERLY LINE OF THAT TRACT CONVEYED TO TIDEWATER ENVIRONMENTAL SERVICES, INC. BY DEED RECORDED UNDER AUDITOR'S FILE NO. 9104290287 OF CLARK COUNTY RECORDS 100.87 FEET TO A 225.00 FOOT RADIUS CURVE TO THE RIGHT WITH A TANGENT BEARING OF SOUTH 81°48'57" WEST INTO SAID 225.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 225.00 FOOT RADIUS CURVE TO THE RIGHT 40.00 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE NORTH 88°00'00" WEST 302.26 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE SOUTH 89°29'56" WEST 11.39 FEET TO A 285.00 FOOT RADIUS CURVE TO THE LEFT WITH A TANGENT BEARING OF SOUTH 89°20'25" WEST INTO SAID 285.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND

AROUND SAID 285.00 FOOT RADIUS CURVE TO THE LEFT 200.52 FEET; THENCE SOUTH 49°01'27" WEST ALONG SAID SOUTHEASTERLY LINE (LINE REFERRED TO AS LINE "B" FROM HEREON) 488.75 FEET TO AN ANGLE POINT IN SAID TIDEWATER TRACT; THENCE NORTH 65°25'56" WEST ALONG THE SOUTHERLY LINE OF SAID TIDEWATER TRACT 645.61 FEET; THENCE SOUTH 25°51'49" WEST LEAVING SAID SOUTHERLY LINE 834.08 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 68°51'19" EAST 239.65 FEET; THENCE SOUTH 64°16'05" EAST 52.04 FEET TO THE SOUTHWESTERLY EXTENSION OF SAID LINE "B"; THENCE SOUTH 49°01'27" WEST ALONG SAID SOUTHWESTERLY EXTENSION 43.55 FEET; THENCE NORTH 64°16'05" WEST 33.22 FEET; THENCE NORTH 68°51'19" WEST 241.35 FEET TO A POINT WHICH BEARS SOUTH 25°51'49" WEST FROM THE TRUE POINT OF BEGINNING; THENCE NORTH 25°51'49" EAST 40.14 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL VII:

AN EASEMENT FOR INGRESS, EGRESS, AND UTILITIES OVER THE FOLLOWING DESCRIBED PROPERTY:

A PARCEL OF PROPERTY IN THE JOHN MATHEWS DONATION LAND CLAIM AND THE WILLIAM HENDRICKSON DONATION LAND CLAIM IN THE SOUTHEAST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 1 WEST AND THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN IN CLARK COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

(THE FOLLOWING COURSES ARE ON A GRID BEARING WASHINGTON STATE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983. A SCALE AND ELEVATION FACTOR OF 1.000049 HAS BEEN APPLIED TO THE MEASURED FIELD DISTANCES.)

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN SAID NORTHEAST CORNER ALSO BEING THE NORTHEAST CORNER OF THE WILLIAM HATTEN DONATION LAND CLAIM, THE NORTH LINE OF SAID HATTEN DONATION LAND CLAIM BEARING SOUTH 69°29'19" WEST; THENCE SOUTH 20°09'51" EAST 6616.90 FEET TO "A LINE" STATION 10 + 55.06, 75.00 FEET RIGHT, AS PER WSDH PLANS FOR SR 501, VANCOUVER LAKE TO PIONEER AVENUE IN RIDGEFIELD, APPROVED MAY 17, 1966; THENCE SOUTH 36°57'49" WEST PARALLEL WITH SAID "A LINE" AND A SOUTHWESTERLY EXTENSION THEREOF, 298.85 FEET TO THE CENTERLINE OF LOWER RIVER ROAD; THENCE SOUTH 36°57'49" WEST ALONG THE SOUTHEASTERLY LINE OF THAT TRACT CONVEYED TO TIDEWATER ENVIRONMENTAL SERVICES, INC. BY DEED RECORDED UNDER AUDITOR'S FILE NO. 9104290287 OF CLARK COUNTY RECORDS 100.87 FEET TO A 225.00 FOOT RADIUS CURVE TO THE RIGHT WITH A TANGENT BEARING OF SOUTH 81°48'57" WEST INTO SAID 225.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 225.00 FOOT RADIUS CURVE TO THE RIGHT 40.00 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE NORTH

88°00'00" WEST 302.26 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE SOUTH 89°29'56" WEST 11.39 FEET TO A 285.00 FOOT RADIUS CURVE TO THE LEFT WITH A TANGENT BEARING OF SOUTH 89°20'25" WEST INTO SAID 285.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 285.00 FOOT RADIUS CURVE TO THE LEFT 200.52 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 49°01'27" WEST ALONG SAID SOUTHEASTERLY LINE 488.75 FEET TO AN ANGLE POINT IN SAID TIDEWATER TRACT; THENCE CONTINUING SOUTH 49°01'27" WEST ON AN EXTENSION OF SAID SOUTHEASTERLY LINE 740.34 FEET; THENCE NORTH 85°00'25" WEST 32.80 FEET TO A 450.00 FOOT RADIUS CURVE TO THE LEFT; THENCE AROUND SAID 450.00 FOOT RADIUS CURVE TO THE LEFT 109.66 FEET; THENCE SOUTH 81°01'50" WEST 106.38 FEET; THENCE SOUTH 86°42'18" WEST 159.83 FEET; THENCE SOUTH 25°51'49" WEST 68.71 FEET; THENCE NORTH 86°42'18" EAST 196.27 FEET; THENCE NORTH 81°01'50" EAST 109.36 FEET TO A 390.00 FOOT RADIUS CURVE TO THE RIGHT; THENCE AROUND SAID 390.00 FOOT RADIUS CURVE TO THE RIGHT 95.04 FEET; THENCE SOUTH 85°00'25" EAST 58.25 FEET; THENCE NORTH 49°01'27" EAST 1254.53 FEET; THENCE NORTH 49°32'43" EAST 497.36 FEET TO THE CENTERLINE OF LOWER RIVER ROAD AS SHOWN ON THAT RECORD OF SURVEY RECORDED IN BOOK 29 AT PAGE 161 OF CLARK COUNTY RECORDS; THENCE NORTH 53°02'11" WEST ALONG SAID CENTERLINE 61.47 FEET TO A POINT WHICH BEARS NORTH 49°32'43" EAST FROM THE TRUE POINT OF BEGINNING; THENCE SOUTH 49°32'43" WEST 484.51 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL VIII:

AN EASEMENT FOR INGRESS, EGRESS, AND UTILITIES OVER THE FOLLOWING DESCRIBED PROPERTY:

A 40.00 FOOT WIDE PARCEL OF PROPERTY LYING ON THE LEFT (SOUTHEAST SIDE) OF THE FOLLOWING DESCRIBED LINE IN THE JOHN MATHEWS DONATION LAND CLAIM AND THE WILLIAM HENDRICKSON DONATION LAND CLAIM IN THE SOUTHEAST QUARTER OF SECTION 13, TOWNSHIP 2 NORTH, RANGE 1 WEST AND THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN IN CLARK COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

(THE FOLLOWING COURSES ARE ON A GRID BEARING WASHINGTON STATE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983. A SCALE AND ELEVATION FACTOR OF 1.000049 HAS BEEN APPLIED TO THE MEASURED FIELD DISTANCES.)

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN, SAID NORTHEAST CORNER ALSO BEING THE NORTHEAST CORNER OF THE WILLIAM HATTEN DONATION LAND CLAIM, THE NORTH LINE OF SAID HATTEN DONATION LAND CLAIM BEARING SOUTH 69°29'19" WEST; THENCE SOUTH 20°09'51" EAST 6616.90 FEET TO "A LINE" STATION 10 + 55.06, 75.00 FEET RIGHT, AS PER WSDH

PLANS FOR SR 501, VANCOUVER LAKE TO PIONEER AVENUE IN RIDGEFIELD, APPROVED MAY 17, 1966; THENCE SOUTH 36°57'49" WEST PARALLEL WITH SAID "A LINE" AND A SOUTHWESTERLY EXTENSION THEREOF, 298.85 FEET TO THE CENTERLINE OF LOWER RIVER ROAD; THENCE SOUTH 36°57'49" WEST ALONG THE SOUTHEASTERLY LINE OF THAT TRACT CONVEYED TO TIDEWATER ENVIRONMENTAL SERVICES, INC. BY DEED RECORDED UNDER AUDITOR'S FILE NO. 9104290287 OF CLARK COUNTY RECORDS 100.87 FEET TO A 225.00 FOOT RADIUS CURVE TO THE RIGHT WITH A TANGENT BEARING OF SOUTH 81°48'57" WEST INTO SAID 225.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 225.00 FOOT RADIUS CURVE TO THE RIGHT 40.00 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE NORTH 88°00'00" WEST 302.26 FEET; THENCE ALONG SAID SOUTHEASTERLY LINE SOUTH 89°29'56" WEST 11.39 FEET TO A 285.00 FOOT RADIUS CURVE TO THE LEFT WITH A TANGENT BEARING OF SOUTH 89°20'25" WEST INTO SAID 285.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID SOUTHEASTERLY LINE AND AROUND SAID 285.00 FOOT RADIUS CURVE TO THE LEFT 200.52 FEET; THENCE SOUTH 49°01'27" WEST ALONG SAID SOUTHEASTERLY LINE 488.75 FEET TO AN ANGLE POINT IN SAID TIDEWATER TRACT; THENCE NORTH 65°25'56" WEST ALONG THE SOUTHERLY LINE OF SAID TIDEWATER TRACT 645.61 FEET; THENCE SOUTH 25°51'49" WEST 974.98 FEET; THENCE NORTH 64°08'11" WEST 96.65 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 27°26'16" WEST 49.86 FEET; THENCE SOUTH 40°49'54" WEST 30.39 FEET; THENCE SOUTH 68°13'04" WEST 40.09 FEET; THENCE SOUTH 84°48'28" WEST 28.92 FEET; THENCE NORTH 88°59'32" WEST 29.49 FEET; THENCE NORTH 78°41'19" WEST 29.76 FEET; THENCE NORTH 72°34'38" WEST 28.67 FEET TO THE END OF THE ABOVE DESCRIBED LINE.

PARCEL IX:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS OVER THE FOLLOWING DESCRIBED PROPERTY:

A PARCEL OF PROPERTY IN THE JOHN MATTHEWS DONATION LAND CLAIM AND THE WILLIAM HENDRICKSON DONATION LAND CLAIM IN THE SOUTH HALF OF SECTION 18, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, CLARK COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

(THE FOLLOWING COURSES ARE ON A GRID BEARING WASHINGTON STATE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983. A SCALE AND ELEVATION FACTOR OF 1.000049 HAS BEEN APPLIED TO THE MEASURED FIELD DISTANCES.)

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 2 NORTH, RANGE 1 WEST OF THE WILLAMETTE MERIDIAN, SAID NORTHEAST CORNER ALSO BEING THE NORTHEAST CORNER OF THE WILLIAM HATTEN DONATION LAND CLAIM, THE NORTH LINE OF SAID HATTEN DONATION LAND CLAIM BEARING SOUTH 69°29'19" WEST; THENCE SOUTH 20°09'51" EAST 6616.90 FEET TO "A LINE" STATION 10 + 55.06, 75.00 FEET

RIGHT, AS PER WSDH PLANS FOR SR 501, VANCOUVER LAKE TO PIONEER AVENUE IN RIDGEFIELD, APPROVED MAY 17, 1966; THENCE SOUTH 36°57'49" WEST PARALLEL WITH SAID "A LINE" AND A SOUTHWESTERLY EXTENSION THEREOF, 298.85 FEET TO THE CENTERLINE OF LOWER RIVER ROAD, AND THE TRUE POINT OF BEGINNING; THENCE SOUTH 36°57'49" WEST ALONG THE SOUTHEASTERLY LINE OF THAT TRACT CONVEYED TO TIDEWATER ENVIRONMENTAL SERVICES, INC. BY DEED RECORDED UNDER AUDITOR'S FILE NO. 9104290287 OF CLARK COUNTY RECORDS 100.87 FEET; THENCE SOUTH 36°42'57" EAST 61.58 FEET TO THE NORTHWESTERLY LINE OF THAT TRACT CONVEYED TO VANCOUVER SMELTING AND INGOT, INC. (AS REFERRED TO IN SCHEDULE A) BY DEED RECORDED UNDER AUDITOR'S FILE NO. 8706250115 OF CLARK COUNTY RECORDS, SAID POINT BEING ON A 117.00 FOOT RADIUS CURVE TO THE LEFT WITH A TANGENT BEARING OF NORTH 75°20'42" EAST INTO SAID 117.00 FOOT RADIUS CURVE AT THIS POINT; THENCE ALONG SAID NORTHWESTERLY LINE AND AROUND SAID 117.00 FOOT RADIUS CURVE TO THE LEFT 66.51 FEET TO A 50.00 FOOT RADIUS CURVE TO THE RIGHT WITH A TANGENT BEARING OF NORTH 46°09'02" EAST INTO SAID 50.00 FOOT RADIUS CURVE AT THIS POINT (HILL RECORD OF SURVEY, BOOK 22, PAGE 154, DELTA 33°40'07", LENGTH 68.75 FEET, RADIUS 117.00 FEET); THENCE ALONG SAID NORTHWESTERLY LINE AND AROUND SAID 50.00 FOOT RADIUS CURVE TO THE RIGHT, 71.74 FEET (HILL RECORD OF SURVEY, BOOK 22, PAGE 154, DELTA 79°51'27", LENGTH 69.69 FEET, RADIUS 50.00 FEET); THENCE SOUTH 52°38'39" EAST ALONG THE NORTHERLY LINE OF SAID VANCOUVER SMELTING AND INGOT, INC. TRACT 15.64 FEET (HILL RECORD OF SURVEY, BOOK 22, PAGE 154, SOUTH 54°28'10" EAST); THENCE NORTH 36°57'49" EAST 15.48 FEET TO THE CENTERLINE OF LOWER RIVER ROAD; THENCE NORTH 53°02'11" WEST ALONG SAID CENTERLINE 150.00 FEET TO THE TRUE POINT OF BEGINNING.

EXCEPTING THEREFROM THE NORTHWESTERLY 48.0 FEET AS MEASURED AT RIGHT ANGLES TO SAID SOUTHEASTERLY LINE OF SAID TIDEWATER ENVIRONMENTAL SERVICES, INC., TRACT.

3-31-09 ALCOA WATER RIGHTS DEED (BERTH AREA)

A 200.00 FOOT WIDE STRIP OF LAND LOCATED IN SECTION 19, TOWNSHIP 2 NORTH, RANGE 1 EAST, WILLAMETTE MERIDIAN, CLARK COUNTY, WASHINGTON. THE NORTHWESTERN SIDE-LINE OF SAID STRIP BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST NORTHEASTERN CORNER OF THAT PROPERTY CONVEYED TO VANCOUVER SMELTING AND INGOT, INC BY DEED RECORDED AS AUDITOR'S FILE 8706250115, RECORDS OF CLARK COUNTY WASHINGTON. SAID POINT BEING A 5/8" IRON ROD WITH YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE ALONG THE SOUTHERN LINES OF THAT PROPERTY CONVEYED TO THE PORT OF VANCOUVER AS DESCRIBED IN AUDITOR'S FILE 9206090248 SOUTH 65°59'34" EAST, 861.82 FEET TO A 5/8" IRON ROD W/ YELLOW PLASTIC CAP STAMPED "HILL LS 7591";

THENCE SOUTH 15°54'21" EAST, 2,655.23 FEET TO **TRUE POINT OF BEGINNING** AT THE INTERSECTION OF THE ORDINARY HIGH WATER LINE OF THE COLUMBIA RIVER WITH THE WESTERN LINE OF THAT PROPERTY CONVEYED TO THE PORT OF VANCOUVER AS DESCRIBED IN AUDITOR'S FILE 9105240201 PARCEL 1B;

THENCE ALONG THE ORDINARY HIGH WATER LINE THE FOLLOWING COURSES:

THENCE NORTH 89°29'12" WEST, 9.52 FEET;

THENCE NORTH 77°40'26" WEST, 16.60 FEET;

THENCE SOUTH 86°36'31" WEST, 77.49 FEET;

THENCE NORTH 78°50'38" WEST, 173.64 FEET;

THENCE NORTH 84°19'36" WEST, 254.87 FEET;

THENCE NORTH 76°30'55" WEST, 20.14 FEET;

THENCE NORTH 69°05'45" WEST, 310.36 FEET;

THENCE NORTH 73°25'50" WEST, 31.58 FEET;

THENCE NORTH 78°01'48" WEST, 41.07 FEET;

THENCE NORTH 75°14'34" WEST, 70.64 FEET;

THENCE NORTH 67°13'09" WEST, 106.03 FEET;

THENCE NORTH 85°08'56" WEST, 14.42 FEET;

THENCE NORTH 69°41'50" WEST, 102.24 FEET;
THENCE NORTH 62°47'21" WEST, 22.10 FEET;
THENCE NORTH 85°06'24" WEST, 12.19 FEET;
THENCE NORTH 78°40'23" WEST, 23.96 FEET;
THENCE NORTH 68°36'38" WEST, 11.78 FEET;
THENCE NORTH 54°35'29" WEST, 28.64 FEET;
THENCE NORTH 61°34'46" WEST, 105.07 FEET;
THENCE NORTH 70°03'25" WEST, 111.12 FEET;
THENCE NORTH 61°56'51" WEST, 18.49 FEET;
THENCE NORTH 66°35'10" WEST, 27.88 FEET;
THENCE NORTH 71°57'33" WEST, 28.64 FEET;
THENCE NORTH 61°44'43" WEST, 36.12 FEET;
THENCE NORTH 70°11'57" WEST, 27.01 FEET;
THENCE NORTH 75°26'06" WEST, 88.93 FEET;
THENCE NORTH 69°07'46" WEST, 82.68 FEET;
THENCE NORTH 85°00'29" WEST, 9.41 FEET;
THENCE NORTH 79°39'38" WEST, 24.20 FEET;
THENCE NORTH 71°31'12" WEST, 49.99 FEET;
THENCE NORTH 76°56'35" WEST, 34.63 FEET;
THENCE NORTH 79°53'56" WEST, 6.78 FEET;
THENCE NORTH 74°55'38" WEST, 53.64 FEET;
THENCE NORTH 73°16'30" WEST, 41.35 FEET;
THENCE NORTH 69°24'34" WEST, 52.13 FEET;
THENCE NORTH 62°17'46" WEST, 32.15 FEET;
THENCE NORTH 65°47'53" WEST, 33.52 FEET;

THENCE NORTH 63°32'11" WEST, 25.50 FEET;
THENCE NORTH 55°03'48" WEST, 52.98 FEET;
THENCE NORTH 34°13'21" WEST, 10.50 FEET;
THENCE NORTH 48°48'47" WEST, 8.46 FEET;
THENCE NORTH 67°23'10" WEST, 34.95 FEET;
THENCE NORTH 62°28'18" WEST, 21.35 FEET;
THENCE NORTH 60°53'29" WEST, 42.70 FEET;
THENCE NORTH 62°43'59" WEST, 61.76 FEET;
THENCE NORTH 47°54'15" WEST, 13.10 FEET;
THENCE NORTH 57°42'47" WEST, 34.21 FEET;
THENCE NORTH 45°30'34" WEST, 26.68 FEET;
THENCE NORTH 63°11'33" WEST, 91.74 FEET;
THENCE NORTH 63°52'03" WEST, 43.89 FEET;
THENCE NORTH 68°40'24" WEST, 45.31 FEET;
THENCE NORTH 63°18'56" WEST, 41.82 FEET;
THENCE NORTH 55°08'42" WEST, 40.63 FEET;
THENCE NORTH 65°23'25" WEST, 39.33 FEET;
THENCE NORTH 68°13'41" WEST, 36.75 FEET;
THENCE NORTH 59°46'47" WEST, 20.47 FEET;
THENCE NORTH 56°29'02" WEST, 23.33 FEET;
THENCE NORTH 73°15'43" WEST, 30.91 FEET;

THENCE NORTH 65°05'42" WEST, 34.79 FEET TO THE EASTERN LINE OF THAT PROPERTY CONVEYED TO VANCOUVER SMELTING AND INGOT, INC AS DESCRIBED IN AUDITOR'S FILE 8706250115;

THE SOUTHEASTERN SIDE-LINE OF SAID STRIP IS TO BE EXTENDED AND/OR SHORTENED TO MEET AT ANGLE POINTS, TO COMMENCE AT THE SOUTHERLY EXTENSION OF THE WESTERN LINE OF THAT PROPERTY CONVEYED TO THE PORT

OF VANCOUVER AS DESCRIBED IN AUDITOR'S FILE 9105240201 PARCEL 1B AND TO TERMINATE AT THE SOUTHERLY EXTENSION OF THE EASTERN LINE OF THAT PROPERTY CONVEYED TO VANCOUVER SMELTING AND INGOT, INC AS DESCRIBED IN AUDITOR'S FILE 8706250115.

SAID TRACT CONTAINS 588,867 SQUARE FEET / 13.52 ACRES, MORE OR LESS.

BEARINGS BASED ON THE WASHINGTON STATE PLANE COORDINATE SYSTEM OF 1983, SOUTH ZONE AND DISTANCES ARE AT GROUND.

2-7-11 DEED (PARCEL 1A)

REAL PROPERTY SITUATED IN THE CITY OF VANCOUVER, CLARK COUNTY, WASHINGTON, BEING A PORTION OF THE HENRY VAN ALMAN DONATION LAND CLAIM, LYING IN THE NORTH HALF OF SECTION 20, TOWNSHIP 2 NORTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, DESCRIBED AS FOLLOWS:

A PORTION OF LOT 3 AND LOT 4 OF THE PORT OF VANCOUVER BINDING SITE PLAN RECORDED IN BOOK 53 OF SURVEYS, AT PAGE 141, RECORDS OF SAID COUNTY, DESCRIBED AS FOLLOWS:

(THE FOLLOWING DESCRIPTION IS REFERENCED TO THE WASHINGTON COORDINATE SYSTEM OF 1983, SOUTH ZONE. DIVIDE THE FOLLOWING "GRID" DISTANCES BY A COMBINED SCALE FACTOR OF 1.000042242 TO DETERMINE "GROUND" DISTANCES.)

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 4, SAID CORNER BEING ON THE SOUTH RIGHT OF WAY LINE OF LOWER RIVER ROAD (SR 501) AS SHOWN ON SAID BINDING SITE PLAN; THENCE ALONG THE NORTH LINE OF SAID LOT 4 AND SAID SOUTH RIGHT OF WAY LINE NORTH 64° 04' 04" WEST 572.59 FEET TO THE NORTHWEST CORNER OF SAID LOT 4, SAID CORNER BEING THE MOST NORTHERLY NORTHEAST CORNER OF SAID LOT 3; THENCE ALONG THE NORTH LINE OF SAID LOT 3 AND SAID SOUTH RIGHT OF WAY LINE NORTH 64° 04' 04" WEST 673.53 FEET; THENCE LEAVING SAID NORTH AND SOUTH LINES SOUTH 30° 59' 21" WEST 717.83 FEET; THENCE SOUTH 58° 53' 18" EAST 1305.38 FEET TO AN ANGLE POINT ON THE EAST LINE OF SAID LOT 3; THENCE ALONG SAID EAST LINE NORTH 19° 56' 02" EAST 57.87 FEET; THENCE ALONG SAID EAST LINE AND THE EAST LINE OF SAID LOT 4 NORTH 27° 04' 10" EAST 775.48 FEET TO THE POINT OF BEGINNING.

CONTAINING 984,584 SQUARE FEET OR APPROXIMATELY 22.603 ACRES.

SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

EXHIBIT "D"

ALTERATIONS TO BE MADE BY LESSOR AND LESSEE

LESSOR'S INFRASTRUCTURE IMPROVEMENTS

- A connection to "The Trench" connecting the BNSF Fall Bridge Subdivision to the Port of Vancouver.
- One common arrival track estimated at 7684 feet between the two (2) innermost switches (identified as Track 4002).
- A connection to the Terminal 5 loop track facility.
- Two dedicated loop tracks for arrivals, each estimated at 7684 feet. These tracks will be identified as Tracks 4106 and 4107.
- A connection with cross-over switches capable of departing on any of two departure tracks listed below.
- Two departure tracks, each estimated at 7684 feet. These tracks are identified as Tracks 4841 and 4842.
- A connection from the departure tracks to the trench for departure.
- Two Bad Order tracks located off the loops tracks designated as Track 4109 and Track 4110. Track 4109 shall be approximately 200 feet and Track 4110 shall be 660 feet. Lessor will make additional space available for Bad Order repairs and processing.

At such time as Lessee has: (i) on a consistent basis, sustained a volume of [REDACTED] (ii) reasonably demonstrated that additional customer volume is likely to be achieved (e.g., through customer expressions of interest, letters of intent, memoranda of understanding or the like), and (iii) Lessee has requested in writing that Lessor proceed, then Lessor shall, within one hundred twenty (120) days, make the following available to Lessee:

- Two dedicated surge tracks, consisting of one loop track for arrivals and one departure track in the main yard (the permits for which shall be obtained by Lessee) with connection to the trench for departure.

LESSEE'S IMPROVEMENTS

Project Description

The Facility is designed to receive crude oil by rail from various sources in North America and pipe it to storage tanks where it will be held until it is loaded onto ships/vessels for transport to end users, which are expected primarily to be West Coast refineries. The Facility will include:

1. Administrative and Support Buildings. The Facility will include an approximately 3,400 square-foot office building for administrative functions and two additional buildings to house lockers, restrooms, and other employee support facilities, each consisting of approximately 3,400 square feet. These buildings will be located on the north side of the Terminal-5 Loop south of Old Lower River Road.
2. Rail Unloading Facility. The rail unloading facility will be located south of the administrative and support facilities and is designed to handle unit trains consisting of approximately [REDACTED] each up to 62 feet in length and powered by three locomotives for a total length of approximately [REDACTED] feet. At full build-out, approximately [REDACTED] trains, carrying up to a total of approximately [REDACTED] barrels of crude oil per day, will arrive via Class I railroad lines for staging on existing and planned tracks at the Port. Trains will arrive at Terminal 5 and travel in a clockwise direction to the unloading building on the north side of the Terminal 5 rail loop. The design will accommodate complete unit trains, eliminating the need to break trains into smaller segments during the unloading process. The rail cars will be unloaded in a building that will be approximately 1,850 feet by 91 feet in size, with a maximum height of approximately 50 feet. The building is designed to accommodate three parallel tracks. Each track will include 30 unloading stations for a total of 90 stations. Each station will accommodate one tank car.

Unloading will be accomplished with a closed-loop system that includes dry fit connectors and emergency-automatic shut-offs. Hoses will be connected to the valves on the cars using dry fit connectors, and the crude oil will gravity-drain from the cars to the collection pipe and then to pump vaults in the building, from which the crude oil will be pumped to the storage tanks.

Approximately thirty of the unloading stations may be equipped with steam fittings to heat heavier oils to facilitate oil transfer from the tank car. Pre-steaming stations may be included in advance of the unloading building to allow heating to occur prior to reaching the unloading stations. Steam will be provided from natural gas boilers.

Pump vaults will house a series of pumps that will push the crude oil to the storage tanks on Parcel 1A.

Pedestrian bridges will be located at select spots throughout the building to allow workers to pass over the unit trains during operations. Additional pedestrian bridges will allow access to the administrative and support buildings over the existing Terminal 5 rail loops and to the interior of the rail loop.

3. Piping. A combination of above-ground and below-ground steel pipes will convey crude oil from the rail unloading facility to the tanks and from the tanks to Berths 13 and 14.
4. Storage Area. The crude oil will be stored in up to six double-bottom, above-ground steel tanks located on Parcel 1A. These tanks will be approximately 48 feet in height and 240 feet in diameter, with a shell capacity of 380,000 barrels each. Each tank will have a fixed roof to keep precipitation from reaching the inside of the tank and an internal floating roof to control tank vapor emissions to the atmosphere. The double-bottomed tanks will include a leak detection system between the tank floors. Two of the proposed tanks may include steam heating coils in their bases to maintain temperatures for heavier crude oil grades. The tanks will be enclosed by a containment berm. The containment area will be designed with a capacity at least equal to 110 percent of the volume of the largest tank plus precipitation from a 24-hour, 100-year storm event. The entire tank containment area will be lined with an impervious membrane to prevent any spills from leaving the containment area via the ground. A sump will collect storm water from the containment area; the sump will be designed to prevent crude oil-contaminated water from being pumped to the storm water disposal system in the event of a spill.
5. Marine Loading. Crude oil will be pumped by pipe to existing port Berths 13 and 14. Piping, jib cranes and related equipment will be installed on the existing dock that serves Berths 13 and 14. The loading system will incorporate automatic shutoff valves with a maximum 30-second shutoff time. A return line will allow oil to return to the storage tanks in case of a shutdown of the ship loading system.
6. Rail. Up to two additional lines will be added to the Terminal 5 loop to accommodate the rail unloading facility. The additional lines will form two complete loops inside of the existing rail loops and will begin and end near the Gateway Avenue grade separation.

Project Schedule

The Facility is subject to the exclusive jurisdiction of the Washington Energy Facility Site Evaluation Council (EFSEC). Per its enabling statute, EFSEC is to make a recommendation to the Governor regarding approval of the proposed project within 12 months of receipt of an application. The Facility may also require permits from the U.S. Army Corps of Engineers. It is anticipated that the Facility will be constructed and fully operational within 9 to 12 months from the receipt of all required permits. A more detailed timeline will be developed as the commencement of construction approaches.

EXHIBIT "E"

GLOSSARY OF TERMS

"Additional Charges" is defined in Paragraph 5.

"Alterations" shall mean all changes, additions, improvements or repairs to, all alterations, reconstructions, renewals, betterments, replacements or removals of and all substitutions or replacements for any of the Premises, both interior and exterior, structural and non-structural, and ordinary and extraordinary. Alterations shall include, but are not limited to, the erection or removal of buildings, facilities or other improvements upon the Premises or the permanent surfacing of any outside areas.

"Baseline Assessment" is defined in Paragraph 2.D. Such site assessment will serve as the baseline environmental study of the environmental condition of the Premises on or about the Conditions Precedent Expiration Date.

"Berth" is defined in Paragraph 9.B.

"Barrels" means a volume equal to 42 U.S. gallons of 231 cubic inches each, at 60 degrees Fahrenheit under one atmosphere of pressure.

"bpd" means Barrels per day, corrected to net standard volume at 60 degrees Fahrenheit as provided for in the API Manual of Petroleum Measurement Standards and ASTM Standard 1250.

"Building Leasehold Award" shall mean that portion of the award in condemnation proceedings that represents the fair market value of Lessee's leasehold interest in the buildings, structures and docks (but not roads, rail lines, utility lines or other infrastructure other than docks) on the Premises for the remaining Term of the Lease. This definition does not include any leasehold advantage award and Lessee may be entitled to such leasehold advantage award if separately awarded.

"CAM" is defined in Paragraph 5.E.

"Common Areas" shall mean those portions of, and facilities within, the Port which are made available by Lessor from time to time for the non-exclusive use of Lessee in common with other tenants and occupants of the Port and their respective customers, agents and employees, including, without limitation, parking areas, driveway, walkways, common loading zones and landscaping.

"Conditions Precedent" means those conditions precedent set forth in Paragraph 2.D.

"Conditions Precedent Expiration Date" means the earlier of (a) the date on which Lessee provides written notice to Lessor, pursuant to the terms of Paragraph 2.E, that the Conditions Precedent have been satisfied or waived, and (b) the Conditions Precedent Outside Date.

"Conditions Precedent Outside Date" means the date that is [REDACTED] months after the Effective Date.

"Consent Decree" means that certain Washington Department of Ecology Consent Decree attached as Exhibit "M".

"2013 Constant" means that the Index shall be utilized to gauge the inflationary rate to be applied to determine the sum of money in then-current dollars that is equivalent to the applicable amount of dollars circa 2013.

"Construction Commencement Date" shall mean the date upon which vertical or significant civil construction begins, which shall occur not later than [REDACTED] months following the Conditions Precedent Expiration Date.

“Construction Period” means the period commencing on the Conditions Precedent Expiration Date and continuing until the Rent Commencement Date.

“Construction Period Fees” means the fees payable pursuant to Paragraph 1.D, to the extent payable during the Construction Period.

“Contingency Period” means the period from the Effective Date until the Conditions Precedent Expiration Date.

“Contingency Period Fees” means the fees payable pursuant to Paragraph 1.D, to the extent payable during the Contingency Period.

“Default” is defined in Paragraph 24.

“DNR” means the Washington Department of Natural Resources.

“Environmental Laws” shall mean any federal, state or local environmental health, safety or similar laws, statutes, rules, regulations or ordinances presently in effect or which may be promulgated in the future, as such laws, statutes, rules, regulations and/or ordinances may be supplemented or amended from time to time, including but not limited to laws regarding the proper and lawful use, transportation, storage, treatment, generation, sale and disposal of Hazardous Substances on or in any manner that affects the Premises or the surrounding properties.

“Exclusive Use” is defined in Paragraph 8.E.

“Existing Environmental Conditions” shall mean the presence of Hazardous Substances on, in, at, or under soil, sediment, surface water, groundwater, structures or other materials of the Premises documented in Exhibits “M” and “N” or other documents (including the Baseline Assessment) regarding the Premises on file with the Port or the Washington Department of Ecology prior to Lessee’s occupancy.

“Facility” shall mean the facility within the Rail/Rack Area, the Support Areas, the Storage Area, and the Marine Terminal Area for the receipt, handling, storage, loading, unloading, blending, and transfer of Petroleum Products.

“Final Premises” is defined in Paragraph 1.B.

“Force Majeure” means an event or circumstance, (i) which event or circumstance is not within the reasonable control of, and not the result of the fault or negligence or imprudent practice of, Lessee, and (ii) which event or circumstance the Lessee, by the exercise of reasonable diligence, is unable to overcome, avoid or cause to be avoided, including, without limitation, acts of God; strike or lockout; sabotage; storm; freeze; snow; wind; flood; war, riot or insurrection; explosion; accident; embargo; blockage; inability to secure governmental authorization or permit; forced outages; and any restraint or restriction imposed by applicable law or any directive from a governmental authority. “Force Majeure” shall not include the Lessee’s inability to make payments when due under this Lease.

“Hazardous Substances” shall mean any hazardous, toxic, dangerous or extremely hazardous substance, material or waste, including marine pollutants, marine toxics, petroleum, and air toxics, which is or becomes regulated by the United State Government, the State of Washington, or any local governmental authority. The term includes, without limitation, any substance containing contaminants regulated as specified above, but does not include Petroleum Products.

“Index” means the Consumer Price Index All Urban Consumers U.S. City Average (1982-84=100) published by the United States Department of Labor, Bureau of Labor Statistics; provided, however, that if such index is discontinued, the Parties shall follow any official consumer price index, whether so named or designated or not, issued by an authorized agency of the United States which supplants such index; otherwise, the Parties shall use any comparable general wholesale or retail price index for the United States reasonably selected by Lessor.

“Interest Rate” shall mean that rate of interest that is the lesser of (i) the maximum interest rate permitted under applicable usury laws; or (ii) twelve percent (12%) per annum.

“Land Award” means that portion of the award in condemnation proceedings that represents the fair market value of the Premises, excluding buildings and Lessee’s trade fixtures and equipment, but including docks, roads, rail lines, utility lines and other infrastructure.

“Lease” shall mean this Lease Agreement, as amended and supplemented from time to time as permitted hereby.

“Leasehold Tax” shall mean any tax on the leasehold interest created by this Lease or on the Base Monthly Rent reserved under this Lease, including without limitation any leasehold excise taxes due and owing on taxable rent under RCW Chapter 82.29A, and any subsequent revision and amendments thereto. “Taxable rent” is defined by statute, and shall include contract rent which is the amount of consideration due as payment for a leasehold interest, including the total of cash payments made to Lessor, or to any other party for the benefit of Lessor according to the requirements of this Lease or agreement, including but not limited to any payments paid by a sublessee; expenditures for the protection of Lessor’s interest when required by the terms of this Lease or agreement; and expenditures for improvements to the property to the extent that such improvements become the property of Lessor. Taxable rent may also be established by the DOR pursuant to RCW 82.29A.020.

“Leasehold Tax Rate” means the applicable rate of Leasehold Tax, currently the rate set forth in Paragraph I.E.

“Lessee” is defined in the preamble of this Lease.

“Lessor” is defined in the preamble of this Lease.

“Lien” shall mean: (i) any interest in property, whether real, personal or mixed and whether tangible or intangible) securing an obligation owed to, or a claim by, a person other than the owner of such property, whether such interest is based on the common law, statute or contract, including any such interest arising from a mortgage, charge, pledge, security agreement, conditional sale, title retention agreement, trust receipt or deposit in trust, consignment or bailment given for security purposes, (ii) any encumbrance upon such property which does not secure such an obligation, or (iii) any other exception to or defect in the title to such property, including but not limited to encroachments, easements, restrictions, rights of entry, licenses and *profits a prendre*.

“Loaded Rail Car” shall mean a rail car that comes in or goes out of the Port with cargo/material.

“MGA Agreement” means the Cargo Commodity Payments Agreement and Minimum Annual Guaranty dated as of even date herewith by and between the Parties, the form of which is attached hereto as Exhibit “O”.

“Marine Terminal Area” is defined in Paragraph 2.B.

“MGA” is defined in the MGA Agreement.

“MGA Term” is defined in the MGA Agreement.

“Nuisance” is defined as provided in RCW 7.48.120, or successor legislation. Presently, nuisance is defined as “unlawfully doing an act, or omitting to perform a duty, which act or omission either annoys, injures or endangers the comfort, repose, health or safety of others, offends decency, or unlawfully interferes with, obstructs or tends to obstruct, or render dangerous for passage, any lake or navigable river, bay, stream, canal or basin, or any public park, square, street or highway; or in any way renders other persons insecure in life, or in the use of property.”

“Operating Term” is defined in Paragraph I.C.

“Parties” shall mean, collectively, Lessor and Lessee.

"Permitted Hazardous Substances" shall mean Petroleum Products, and Hazardous Substances expressly permitted to be used, stored, or transported on the Premises in accordance with Paragraph 8.A of this Lease, but shall not include any such Petroleum Products or Hazardous Substance to the extent Released: (a) at the Premises or Pipeline Agreement areas, or (b) in conjunction with the Permitted Use.

"Person" shall mean any individual (natural person), partnership, corporation, trust, unincorporated association, syndicate, joint venture or other organization or any government or any department or agency thereof or any other entity.

"Petroleum Products" shall mean any mixture of hydrocarbons that exist in the liquid phase at atmospheric pressure, including any crude oils, diluents, topped crude oils, partially or incompletely refined crude oils, distillates, biofuels, condensates, intermediates, derivatives, blends, intermixes and finished products (including motor fuels, but excluding any chlorinated hydrocarbons or solvents). Non-exclusive examples of various petroleum products are attached hereto as Exhibit "H." This definition of Petroleum Products shall not be used to designate the Exclusive Use provided in Paragraph 8.E.

"Pipeline Agreement" is defined in Paragraph 2.A.

"Port" shall mean the Port of Vancouver, a municipal corporation organized and existing under the laws of the State of Washington.

"Port Commission" shall mean Commission of the Port of Vancouver.

"Port Management Agreement" means the Management Agreement No. 20-080008 dated as of October 1, 1984, between Lessor and the State of Washington, as amended by amendments dated February 24, 1989; on or about May 11, 1993, and most recently amended by Amendment to Port Management Agreement No. 20-080008 dated April 2, 2009, a copy of which is attached hereto as Exhibit P.

"Port's Rail System" is defined in Exhibit "J".

"Preliminary Premises" is defined in Paragraph 1.B.

"Premises" shall mean the Preliminary Premises until such time as replacement Exhibits "A", "B-1", "B-2" and "B-3" have been attached to this Lease and incorporated herein by a lease amendment executed by the Parties, as contemplated by Paragraph 2.D; upon such attachment and incorporation, the term "Premises" shall mean the Final Premises.

"Rail Facility for Unit Trains" shall mean a facility on Port property capable of unloading more than [REDACTED] bpd of crude oil from trains.

"Rail/Rack Area" is defined in Paragraph 1.B.

"Related Parties" shall mean, with respect to Lessor, its commissioners, officers, agents, representatives and employees and, with respect to Lessee, its officers, directors, employees, shareholders, agents and representatives.

"Release" shall be defined as provided in 42 U.S.C. § 9601 and RCW 70.105D.020, or successor legislation. In the event a conflict exists between the two definitions, the broader definition shall apply. For purposes of this Lease, the term Release shall also include an anticipated Release.

"Rent" is defined in Paragraph 4.C.

"Rent Commencement Date" shall mean the date on which the construction of the Facility has been completed, fully tested and commissioned, and is ready to receive product, which shall be not later than [REDACTED] months following the Conditions Precedent Expiration Date.

“Restrictive Covenants” means the Washington Department of Ecology mandated Restrictive Covenants attached as Exhibit “N”.

“Storage Area” is defined in Paragraph I.B.

“Term” shall mean the Term of this Lease, as described in Paragraph I.C, including any extension thereof, unless sooner terminated pursuant to the terms and provisions of this Lease.

“Wharfage, Service and Facilities Fees” means, collectively, the amounts paid for wharfage, service and facilities pursuant to the MGA Agreement.

EXHIBIT "F"

RULES AND REGULATIONS

The following are initial rules and regulations applicable to Lessee's use of the Premises, which rules and regulations are subject to revision by Lessor from time to time as provided in the Lease.

1. All signage within Port of Vancouver shall be in compliance with the local sign ordinances and pre-approved by Lessor. All costs associated with any tenant signage, as well as directory advertisement, will be the responsibility of Lessee.
2. At occupancy date, Lessor shall provide Lessee with a key for the Premises. In the event at any time during the Lease term Lessee changes the locks on the entrance doors to the Premises and/or to any other doors within the Premises, if applicable, without Lessor's prior written approval, Lessee shall immediately provide Lessor with copies of all new keys and shall be responsible for any costs incurred by Lessor for rekeying the Premises on termination, if desired by Lessor.
3. Lessee understands and agrees that no right to store equipment, materials or inventory outside the Premises is being granted as part of this Lease. All equipment, materials and inventory, including, but not limited to, metal, pallets, boxes and items related to Lessee's business, are to be stored inside the Premises.
4. No overnight sleeping in vehicles parked inside or outside the Premises or anywhere within the Port is permitted.
5. Lessee understands and agrees that all shelving, materials, inventory and other product stored in a warehouse area of the Premises must be kept a minimum of three (3) feet away from all sides of the electrical panel installed in the warehouse area.
6. Lessee shall use drip pans, drop cloths, and all other appropriate protective methods and containers under any potential paint, oil, grease, or solvent sources within the Premises, consistent with stringent hazardous waste management practices, so as to minimize the leakage or deposit of such substances, to the maximum extent practicable, will dispose of all such wastes consistent with applicable laws and under permit if appropriate, and will be responsible for returning the Premises back to the same condition and finish existing at the time of first occupancy by Lessee. In particular, all grease/oil and/or any other spills areas must be cleaned thoroughly such that all traces of the waste are removed from the Premises and other contaminated areas are completely remediated.
7. Lessee understands and agrees that washing, steam cleaning or sandblasting of any vehicles, tools, product or equipment is not permitted anywhere within the Premises or Port.
8. Consistent with the Lease, all tenant improvements done within the Premises during the Lease term by Lessee shall first be approved in writing by Lessor prior to the commencement of any construction, and must be done in accordance with all applicable local, state and federal codes, regulations and laws, and must be done by a Washington licensed, bonded and insured contractor and in accordance with the Port's Standard Improvement Specifications. All subcontractors utilized in the Premises for any improvements must first, before commencing work, sign lien releases in favor of Lessor.
9. The Premises will be cleaned thoroughly on a periodic basis and maintained in a clean and presentable condition throughout the Lease term. At the end of the Lease term, a thorough cleaning will be performed and any damage repaired immediately.
10. Lessee is not authorized to do any type of automobile, truck or heavy equipment repair, including oil changes, or dismantling on the Premises or in the Port generally, with the exception of the repair of rail cars incident to the business conducted by Lessee on the Premises.
11. Lessee shall not leave or store disabled vehicles or equipment on the Premises or in the Port, with the exception of those rail cars which are, from time to time, being repaired as part of the business conducted by Lessee on the Premises.

12. Immediately prior to the turnover of the Premises to Lessor on termination of the Lease, Lessee shall walk through the Premises with a representative of Lessor in order to make determinations as to fixtures and any other alterations/additions/installations that have either been done by Lessee and/or for Lessee by Lessor, and that should be removed from the Premises by Lessee, prior to or at the date of Lease termination (except as otherwise expressly provided by the terms of the Lease). Lessee and Lessor shall also agree as to how the Premises must be repaired after such removal; provided, however, that failing agreement, the reasonable determination of Lessor shall be binding on Lessee.

13. No animals are to be kept within the Premises at any time throughout the Lease term, including but not limited to guard dogs.

14. Lessee shall maintain in compliance with all applicable local, state, and federal regulations including, but not limited to, building and fire codes with regard to all activities to be performed within the Premises and in the Port.

Section 2.3 – Construction on Site

WAC 463-60-145

Proposal – Construction on site.

The applicant shall describe the characteristics of the construction to occur at the proposed site including the type, size, and cost of the facility; description of major components and such information as will acquaint the council with the significant features of the proposed project.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, recodified as § 463-60-145, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-145, filed 10/8/81. Formerly WAC 463-42-210.)

Section 2.3 Construction On Site

2.3.1 Project Overview

The Applicant is proposing to construct a facility to receive crude oil by rail, store it on site, and load it on marine vessels primarily for delivery to refineries located on the West Coast of North America. A simplified view of the crude oil flow through the Facility is shown in Figure 2.3-1. Unit trains will arrive at the project site and will be stationed on the Facility rail loops. The trains will be “indexed” through the unloading area (Area 200), where the crude oil will be gravity-drained into the transfer pipeline system (Area 500). The crude oil will be pumped through the transfer pipelines to the crude oil storage tanks (Area 300) where it will be held until the marine vessel loading operation. The storage tanks are also designed to allow blending the various types of crude oil at the Facility to meet customer demands for specific qualities. Marine vessels will arrive and moor at the dock (Area 400) where they will be preboomed. Crude oil will be pumped from the storage tanks to the loading area, and loaded to the marine vessels.

The lease with the Port allows the handling of other petroleum products, including refined products, as well as the ability to unload products at the Marine Terminal. Although allowed by the lease, this request for Site Certification does not include the ability to handle materials other than crude oil or to receive any crude oil or petroleum products at the dock. Should the Applicant decide to undertake these activities, an amendment to the Site Certification Agreement will be pursued with EFSEC.

In addition to the primary components described above, the Facility will include ancillary elements that will support the offloading, storage, and loading operations. The primary and ancillary elements are described in detail below. Table 2.3-1 summarizes the primary and ancillary project elements by Facility area.

Table 2.3-1. Summary of Primary and Ancillary Project Elements

Facility Area	Primary and Ancillary Project Elements
Rail Infrastructure	<ul style="list-style-type: none"> • Rail facility loops
200 – Unloading and Office	<ul style="list-style-type: none"> • Rail unloading area • Control rooms\E-houses • Fire Pump and Foam Building • Administrative and Support Buildings
300 – Storage	<ul style="list-style-type: none"> • Crude Oil Storage Tanks • Secondary Containment Berm • Boiler Building • Pump Basin • Control Room/E-House • Fire Pump and Foam Building
400 – Marine Terminal	<ul style="list-style-type: none"> • Marine Vessel Loading Hoses and Equipment • Control Room/E-House • Crane Control Room • Dock Safety Unit • MVCU • Vapor Blower Skid • Spill Prevention, Response and Containment Equipment • Dock Improvements • Fire Pump and Foam Building
500 – Transfer Pipelines	<ul style="list-style-type: none"> • Transfer Piping from Area 200 to Area 300 • Transfer Piping to/from Area 300 to Area 400 • Piping from vessel loading to MVCU
600 - West Boiler	<ul style="list-style-type: none"> • West Boiler Building • Piping to carry steam to Area 200

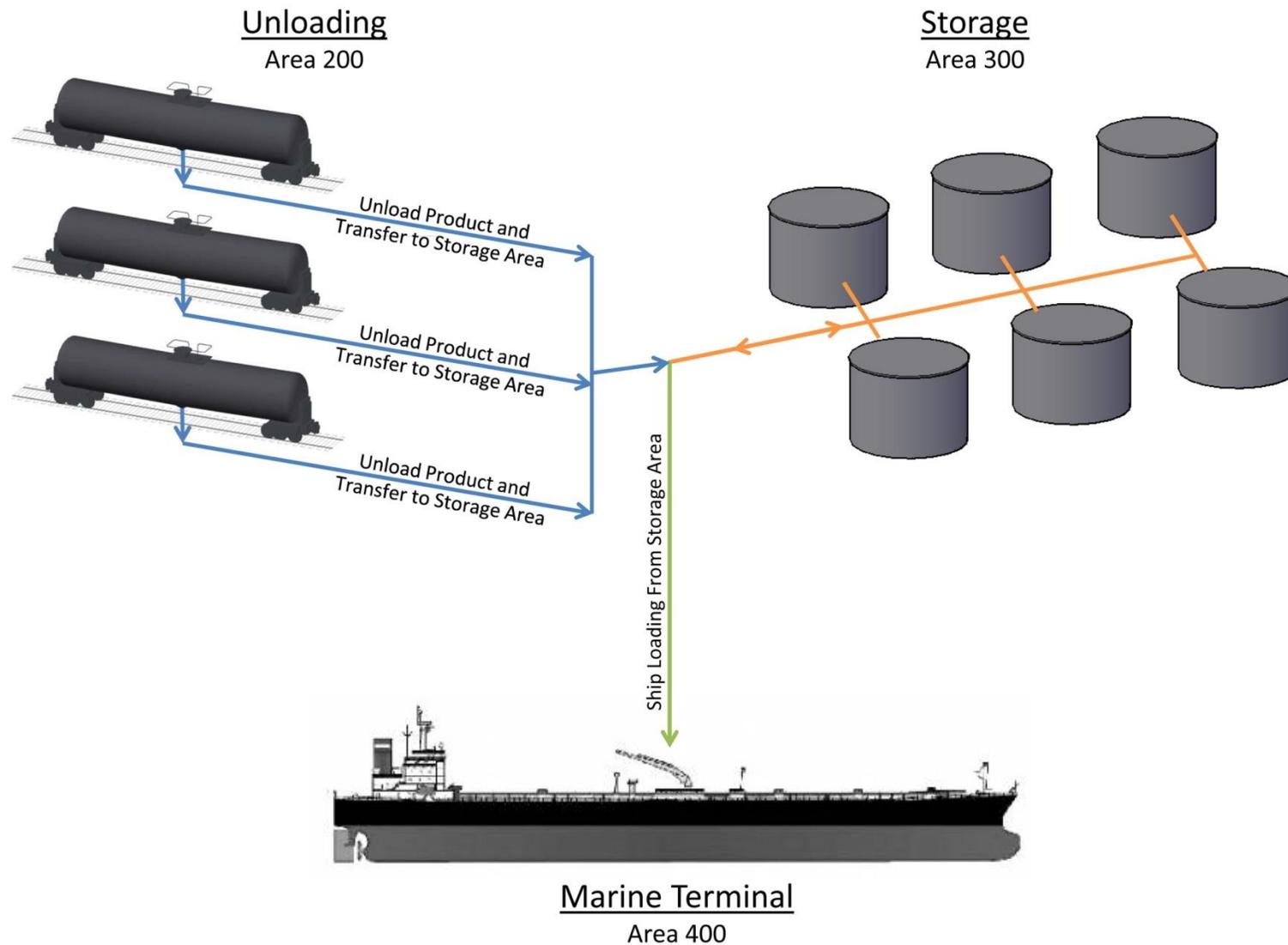


Figure 2.3-1. Product Flow Diagram

Primary vehicular access to the proposed project will be to the Administration Building accessible from Old Lower River Road via a private road owned and maintained by the Port. This private road connects with Old Lower River Road approximately 1,000 feet west of the proposed Administration Building. The Storage Area will be accessed from a private drive shared with Farwest Steel from NW Lower River Road. The Storage Area is not anticipated to require full-time staffing and parking will be provided only for routine maintenance. The marine terminal will be accessed by Gateway Avenue and Harborside Drive via a newly constructed driveway. No modifications are proposed to existing public roads accessing this area of the Port. An existing asphalted area at the berths will be used by project personnel during ship loading operations. Although the West Boiler Building at the rail unloading area ordinarily will not be occupied full-time, parking for maintenance vehicles will be provided.

2.3.1.1 Facility Elements Included in the Application for Site Certification

Project Elements under EFSEC Jurisdiction

The Applicant is seeking site certification for the Facility configuration at full capacity. Based on market demand for subscriptions by potential clients to use the Facility to deliver crude oil, the Applicant may choose to construct either all elements of the Facility upon receiving site certification, or may choose to defer construction of some of the Facility elements to a later date. From the beginning of operations, regardless of whether the deferred elements are constructed or not, the Facility will have the capability to receive an average of 360,000 barrels/day of crude oil. Construction of the potentially deferred elements will not add receipt capacity on a daily basis; construction of the potentially deferred elements will allow the Facility to receive and handle different crude qualities (i.e., heavier pipeline quality crudes that require heating for transfer operations), and additional capability to segregate crudes for different clients.

Upon receiving site certification from EFSEC and all federal approvals, the Applicant expects to construct the following facilities, at a minimum:

- Two rail loops to receive unit trains
- The unloading building²
 - The entire unloading building structure and foundations
 - Two of the unloading tracks, including rail tracks, trenches, pump basins, catwalks/gangways and all piping necessary to support operations
 - One unloading track including only the concrete trench, but no rail or associated piping, gangways or mezzanines
- Administrative and support buildings
 - The administrative building
 - One of the two support buildings
- Storage area including:
 - The entire exterior containment berm sized and designed for 110% of the largest storage tank and the rainfall from a 24-hour, 100-year storm for the entire berm area

² The rail unloading “building” is likely to be considered more properly a “structure/weather enclosure” with minimal siding for fire-protection purposes, and not a “building” under the definition of the National Fire Protection Code. However, in the remainder of this application, it will be referred to as a “building.”

- The four storage tanks designed to handle non-heated pipeline quality crude
- The intermediate berms necessary to contain the contents of the four tanks installed in the first stage
- Stormwater facilities to capture stormwater associated with the storage of four of the six tanks.
- Transfer pipelines serving the concurrent unloading of unit trains staged at the 2 unloading tracks described above, and the conveyance to the marine terminal
- Transfer pipelines serving the conveyance of crude oil from the storage area to the marine terminal.
- Marine terminal facilities designed to handle the conveyance of crude oil to a marine vessel at full vessel loading capacity rates.
- All of the berth improvements necessary to support vessel berthing.
- Eight MVCUs
- Fire-suppression facilities sufficient to meet the suppression needs of the facilities installed

Contingent on evolving market conditions, the Applicant may choose to defer construction of the following additional elements to a later date:

- In the unloading building
 - The catwalks/gangways and all piping necessary to support operations of the third unloading track, which may include the ability to handle heated crude
- Administrative and support buildings
 - The second of the support buildings
- Storage area including:
 - The two tanks that will have the capability to accept heated crude
 - Stormwater facilities to capture stormwater associated with the remaining two of the six tanks.
- Transfer pipelines serving the concurrent unloading of unit trains staged at the 3rd unloading track
- The West Boiler Building (Area 600) and the East Boiler Building, which is part of Area 300
- Fire-suppression facilities sufficient to meet the suppression needs of the additional facilities installed

In the future, the Facility will incorporate a third rail loop to be constructed by the Port for the Facility's exclusive use, serving the third unloading track. This third track will be built by the Port as part of the permitted WVFA project, prior to, concurrently with, or after the construction of the Facility. Until such time that the Facility capacity does not exceed 120,000 barrels per day, this third loop track will be owned and operated by the Port for general use. When the Facility capacity exceeds 120,000 barrels per day, use of the third rail loop will be transferred to the exclusive use of the Facility. The Facility will then also undertake maintenance of this this third loop.

The Applicant expects a 20-year lifetime for the Facility. Such timeline may be extended should market conditions warrant. During that lifetime the Applicant requests that site certification be granted for operation and maintenance of all of the above facilities, with the following exception: Maintenance dredging at berths 13 and 14 are part of the Marine Terminal (Area 400). Dredging operations will continue to be conducted by the Port of Vancouver under its existing and future approvals granted by local, state and federal agencies to which such dredging is subject. The

most recent approvals for dredging within these areas were received in 2013 and include appropriate handling details for dredged materials (USACE Permit No. NWP-2007-916, Water Quality Certification Order #5984).

Facilities Not Under EFSEC Jurisdiction

The Applicant discloses that the following elements will be approved and constructed by others in support of the Facility, and they are not part of this request for site certification:

- Utility connections to the Facility site boundaries, e.g., natural gas supply from Northwest Natural Gas, electricity supply line from Clark Public Utilities, water supply from the City of Vancouver.
- Movement of the permitted (existing and to be built³) two train loops serving Terminal 5 to accommodate the rail loops built by the Facility,
- As noted above, maintenance dredging of berths 13 and 14 by the Port.

2.3.2 Rail Infrastructure

The project site has been selected to take full advantage of dual Class 1 (BNSF and Union Pacific) unit train access at the Port's Terminal 5. The existing rail infrastructure at Terminal 5 is illustrated in Figure 2.3-3.

Up to four unit trains per day on average will be delivered onto the Port's rail network via Class I railroad lines for staging on the rail infrastructure serving the Facility. Trains will arrive at Terminal 5 from the east where they will exit the Class 1 mainlines and enter the Port's industrial rail network and travel to the rail unloading building located on the north side of the Terminal 5 rail loop. The design of the rail infrastructure will accommodate complete unit trains, eliminating the need to break trains into smaller segments requiring multiple switching movements during the unloading process.

To support the staging of unit trains, two new rail lines (track numbers 4106 and 4107), each approximately 7,700 feet in length, will be added to the Terminal 5 rail infrastructure. As shown in Figure 2.3-4, the additional lines will form two complete loops inside the existing rail loops and will begin and end near the Gateway Avenue grade separation. In addition, the following rail infrastructure will be added to allow the switching and departure of trains.

- A connection with cross-over switches capable of departing on any of two departure tracks listed below.
- Two departure tracks, each estimated at 7,700 feet. These tracks are identified as Tracks 4841 and 4842.
- A connection from the departure tracks to the trench for departure.

³ Shifting of the existing rail loops was permitted by the U.S. Department of Transportation, Federal Railroad Administration (Finding of No Significant Impact, West Vancouver Freight Access Project - Schedules 2-4, 9/14/2011; West Vancouver Freight Access Project Schedules 2-4, Final Environmental Assessment, May 2011) and by the City of Vancouver (City of Vancouver No. PRJ2011-01120/SHL2011-00004, Summary of Decision and Recommendation, Port of Vancouver Terminal 5 Rail Expansion Project, November 23, 2011).

- Two tracks located off the loops track to temporarily stage rail cars with deficiencies removed from the unit train prior to the cars being released back to the rail carrier, designated as Track 4109 and Track 4110. Track 4109 will be approximately 200 feet long and Track 4110 will be approximately 700 feet long.

Altogether these additions comprise approximately 18,000 linear feet of new rail infrastructure. The rail loops will be designed to comply with railroad and federal requirements.

As noted above, at full capacity, to accommodate an average of four unit trains per day and allow simultaneous unloading of up to three unit trains, the Applicant will use the rail loop to be constructed by the Port at Terminal 5 (Track 4015).

In order to accommodate the two additional rail loops, the configuration of permitted (existing and to be built) WVFA rail facilities and the adjacent loop road will be shifted; the shifting of existing facilities will be performed by others, has been previously permitted, and is not included within this request for Site Certification.

The Applicant will operate two SW1500 switching locomotives in support of Facility operations. These locomotives will be used to remove and temporarily stage tank cars that have been identified as having potential deficiencies that prevent them from being released back to the rail carrier. These tank cars will be emptied of contents using the unloading process described below, disconnected from the unit train, and repositioned on site for temporary storage until they are repaired on site, or removed from the site for repair at a separate location. It is anticipated the switching locomotives would be leased or purchased from one of the major locomotive manufacturers, such as Trinity, Unity, Greenbriar, or Utlx.

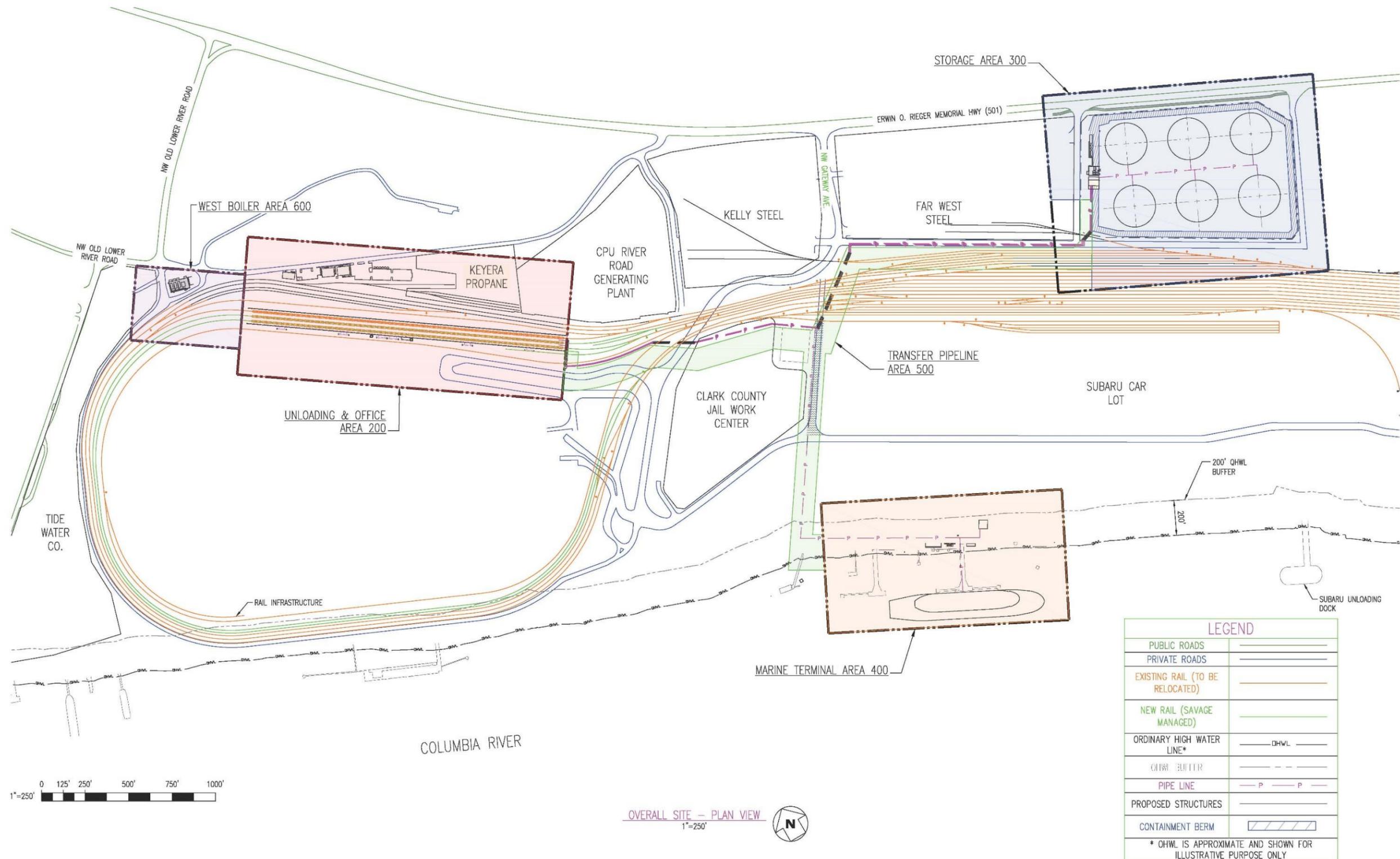
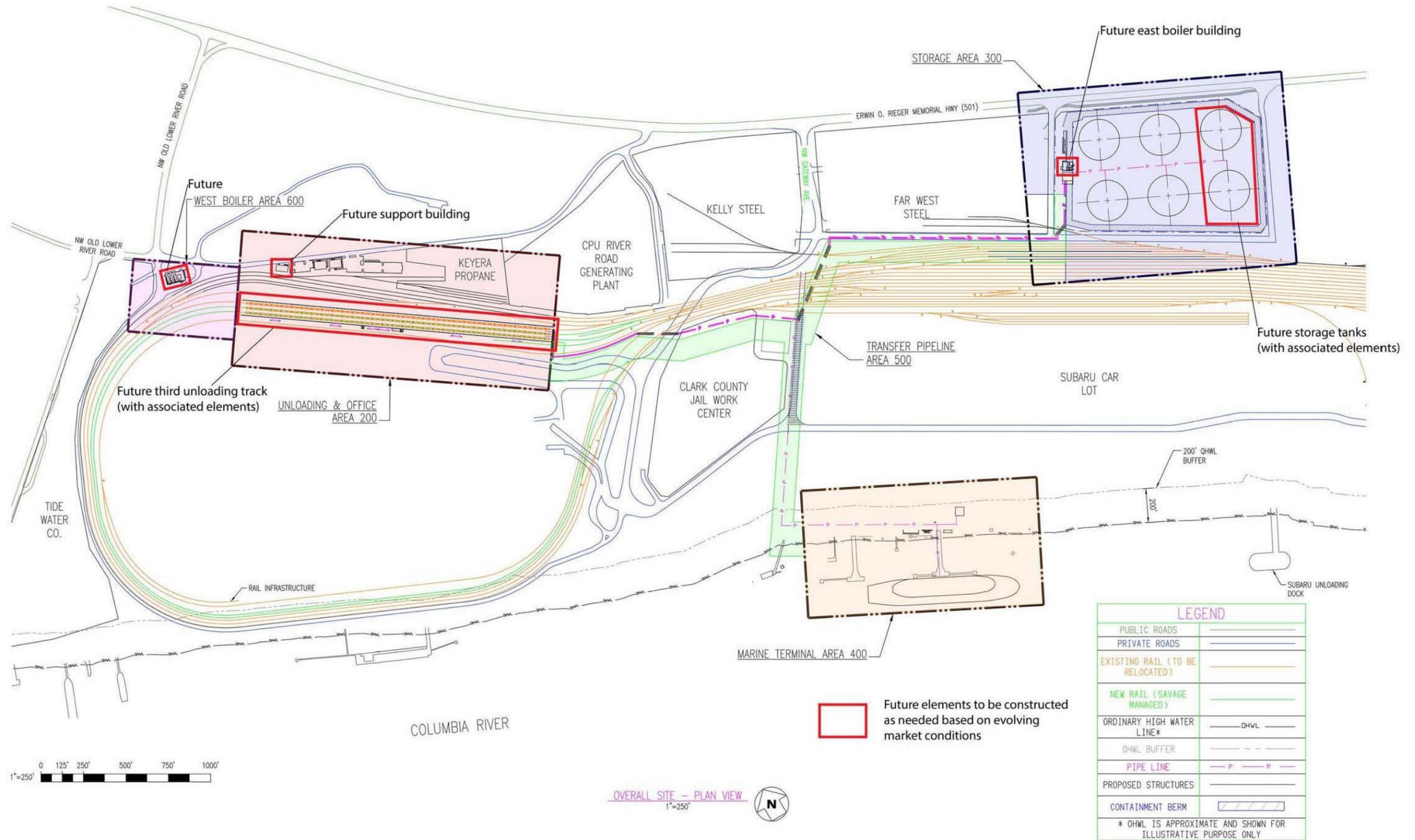
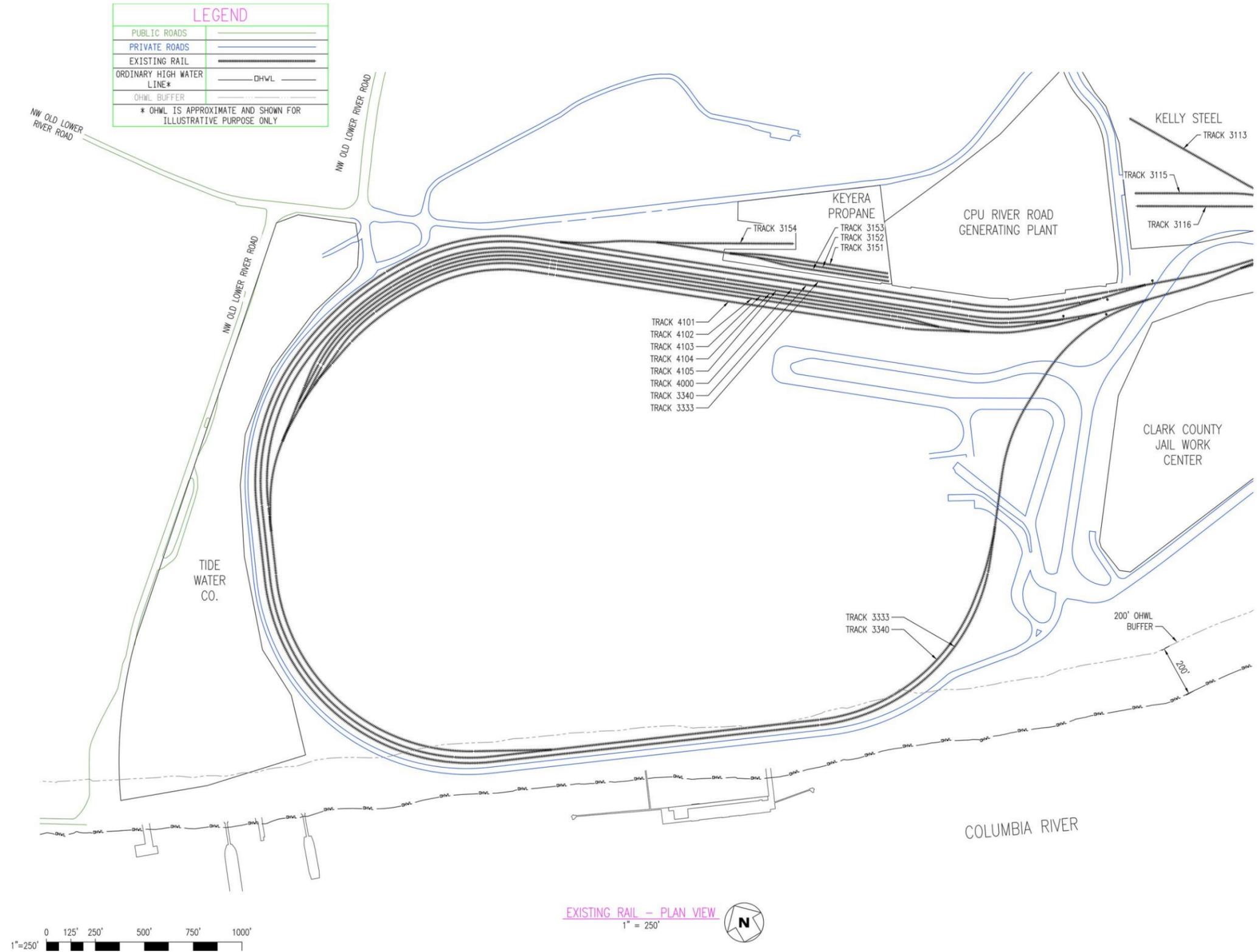


Figure 2.3-2. Overall Site Plan (Revised)





 **Figure 2.3-3. Existing Rail Infrastructure**

2.3.3 Area 200 – Unloading and Office

2.3.3.1 Rail Car Unloading

General Configuration

The rail unloading elements (Area 200) will be located south of the Administrative and Support Buildings. The rail unloading building will span tracks 4105, 4106, and 4107. Existing rail lines will separate the unloading elements from the Administrative/Support Buildings. These existing rail lines are not part of the Facility. A pedestrian bridge will provide access from the Administrative/Support Buildings to the rail unloading building. Figure 2.3-4 provides a plan view of the arrangement of the rail unloading building with respect to existing rail lines and the Administrative/Support Buildings.

The rail car unloading elements will be designed to receive and unload crude oil unit trains. Two of the unloading tracks will accommodate trains carrying crude oil that can be unloaded and conveyed without being heated; the third unloading track will accommodate trains carrying crude oil that can be unloaded and conveyed without being heated as well as crude oil that may need to be heated (to approximately 150 degrees F) prior to unloading and conveyance to storage.

Each unit train will include approximately 100 to 120 tank cars. Typical unit train length will be approximately 7,800 feet. Tank cars typically hold between 650 and 750 barrels of crude oil.⁴ A typical unit train will deliver between 65,000 and 90,000 barrels of crude oil.

The rail car unloading facility is composed of a covered structure through which the trains will be pulled and safely secured where the unloading will occur. The building that houses the rail car unloading functions will be approximately 1,850 feet long by 91 feet wide, with a maximum height of approximately 50 feet. Figure 2.3-7 illustrates cross-sections of the unloading building at the location of the walkway to the Administrative/Support Buildings, and at a typical internal walkway. The structure will consist of a steel frame with sheet metal walls painted a neutral color. The structure will be open on both ends and have sides that stop short of the roofline to allow continuous venting. The structure will also have translucent panels for natural lighting as well as interior lighting. The building and its components will be built to applicable building and safety codes as outlined in Section 4.1.

Unloading Piping

The unloading area is designed to accommodate three parallel tracks. Each track will include 30 unloading stations for a total of 90 stations, 30 stations per track. Track 4105 will be able to heat the rail cars with steam, as described in more detail below.

The 30 unloading stations for each track are subdivided into five groups of six unloading stations. Figure 2.3-6 illustrates the typical configuration of rail car unloading. Each unloading station will accommodate one rail car. Each unloading station will include the following:

- Hoses equipped with dry fit connectors used to gravity drain the crude oil from the tank car to a collection header pipe

⁴ A barrel of crude oil contains 42 gallons.

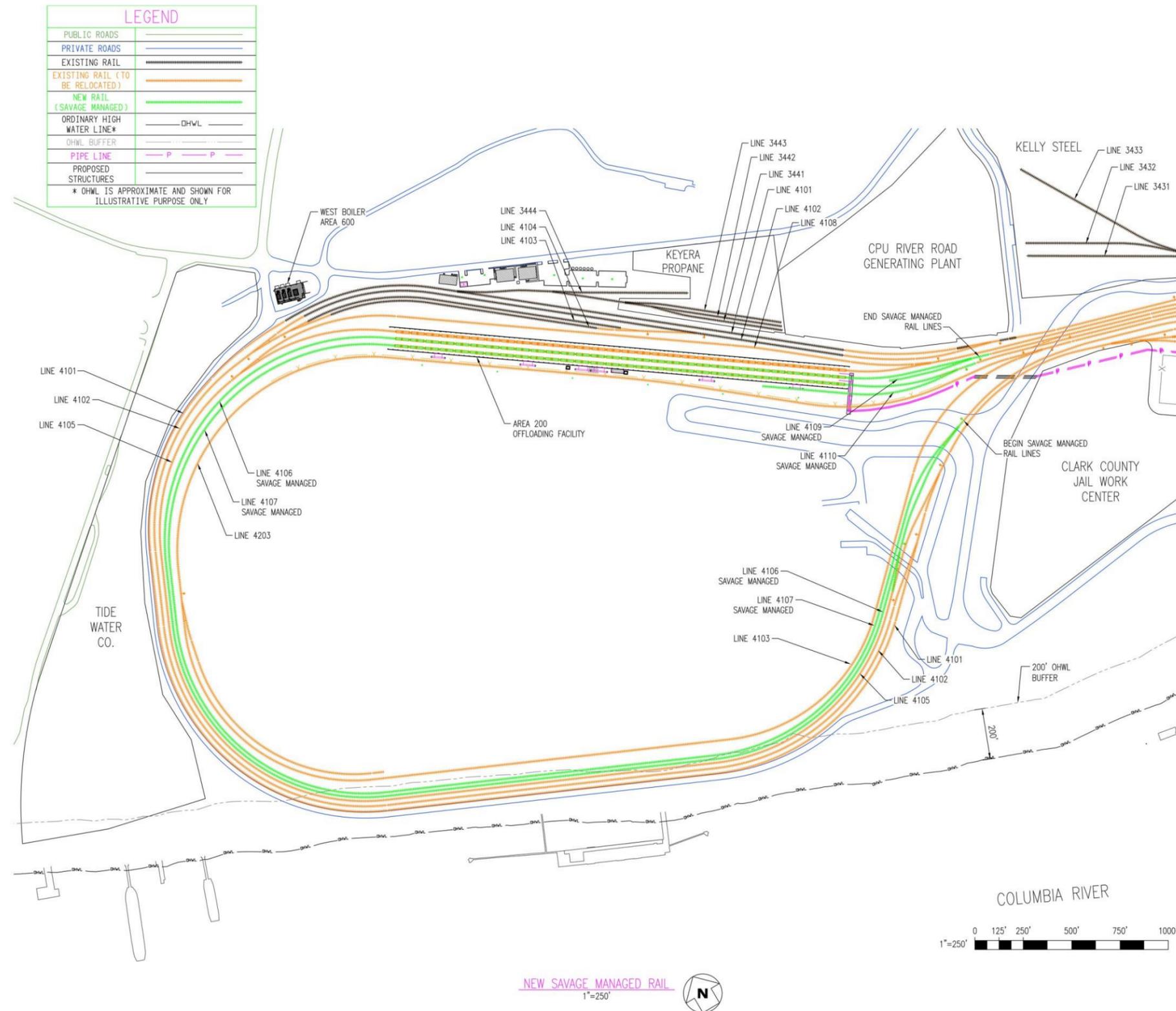


Figure 2.3-4. Rail Improvements

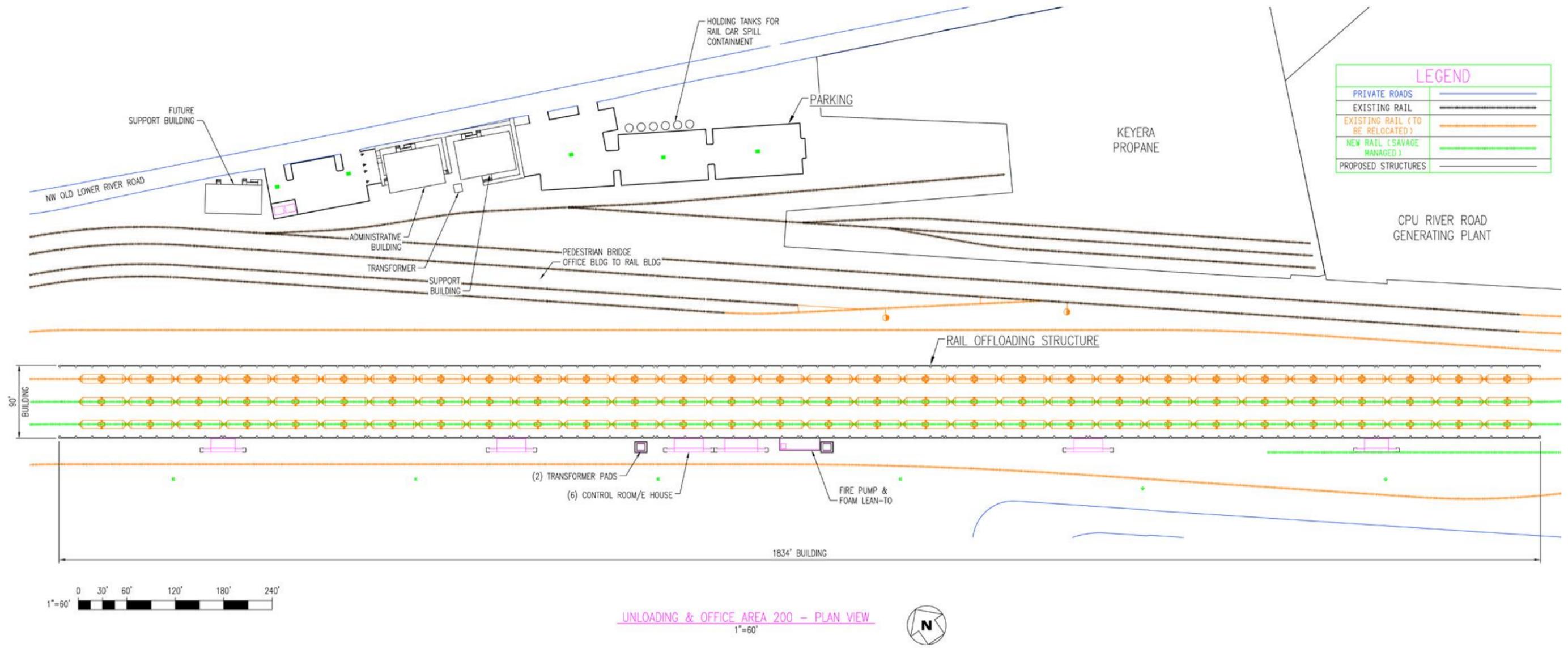


Figure 2.3-5. Rail Car Unloading Facility

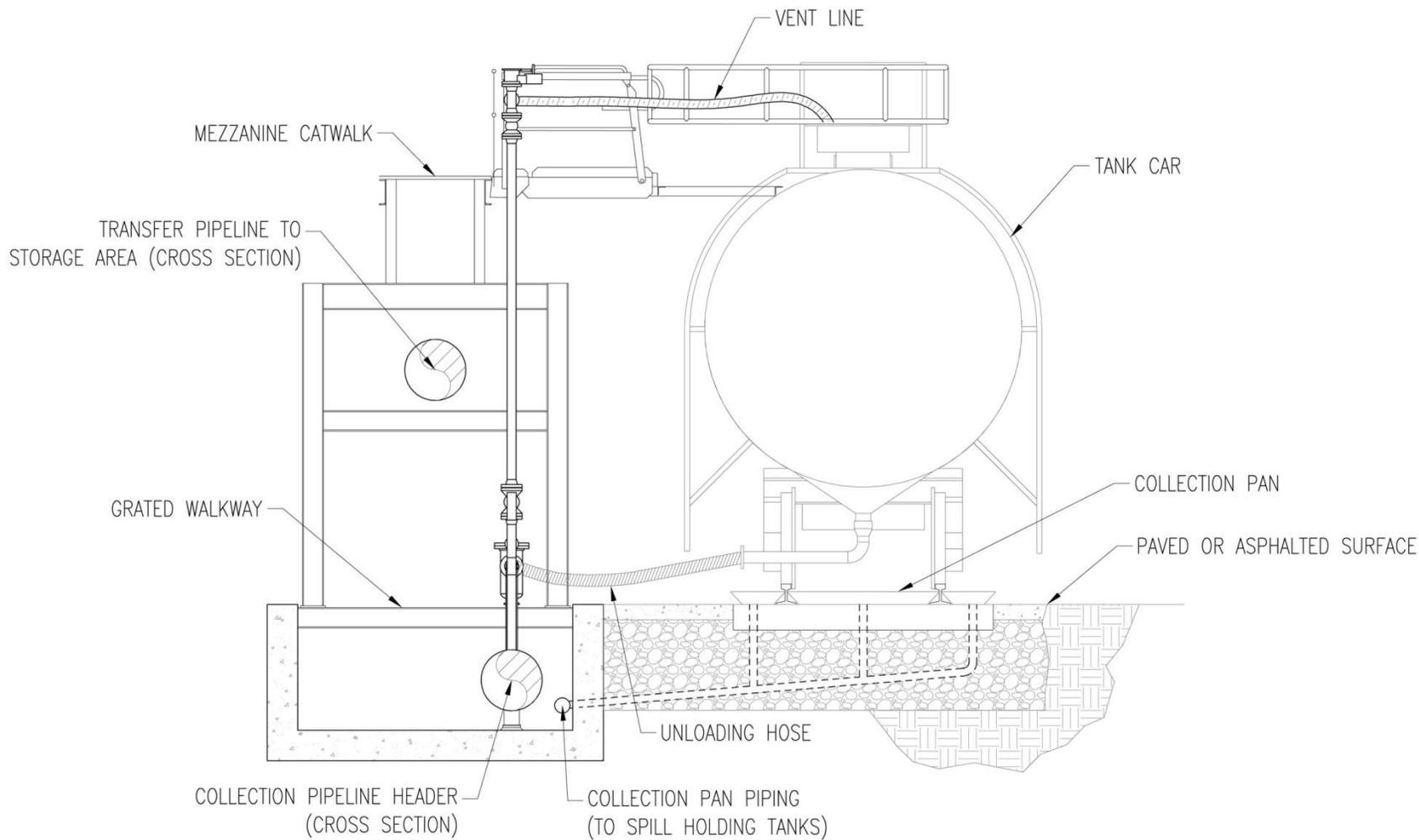
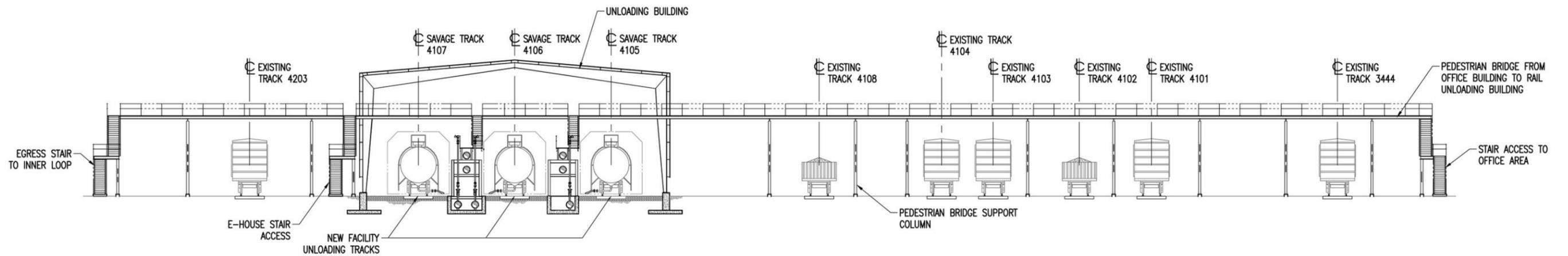
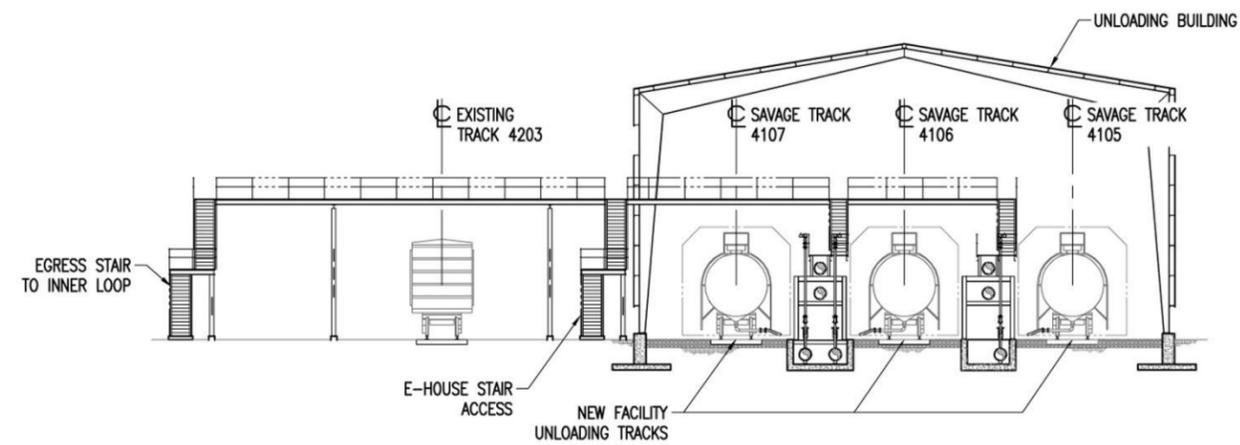


Figure 2.3-6. Rail Car Unloading Facility Cross Section



CROSS SECTION AT PEDESTRIAN BRIDGE



CROSS SECTION AT PEDESTRIAN BRIDGE TO INNER LOOP

- Walkway (gangway) grating to serve as the unloading work platform
- Mezzanine catwalks to access the top of the tank cars
- Collection pans between rails that are piped to a separate line that conveys inadvertent releases to the rail unloading facility containment tanks;
- Concrete or asphalted ground surfaces between the unloading rail tracks
- A vent line to the top of the cars to allow vapor in the manifold to return to the rail car during unloading.
- A Vacuum breaker that allows the tank car to maintain negative .5 psi to atmospheric pressure as its contents are unloaded.

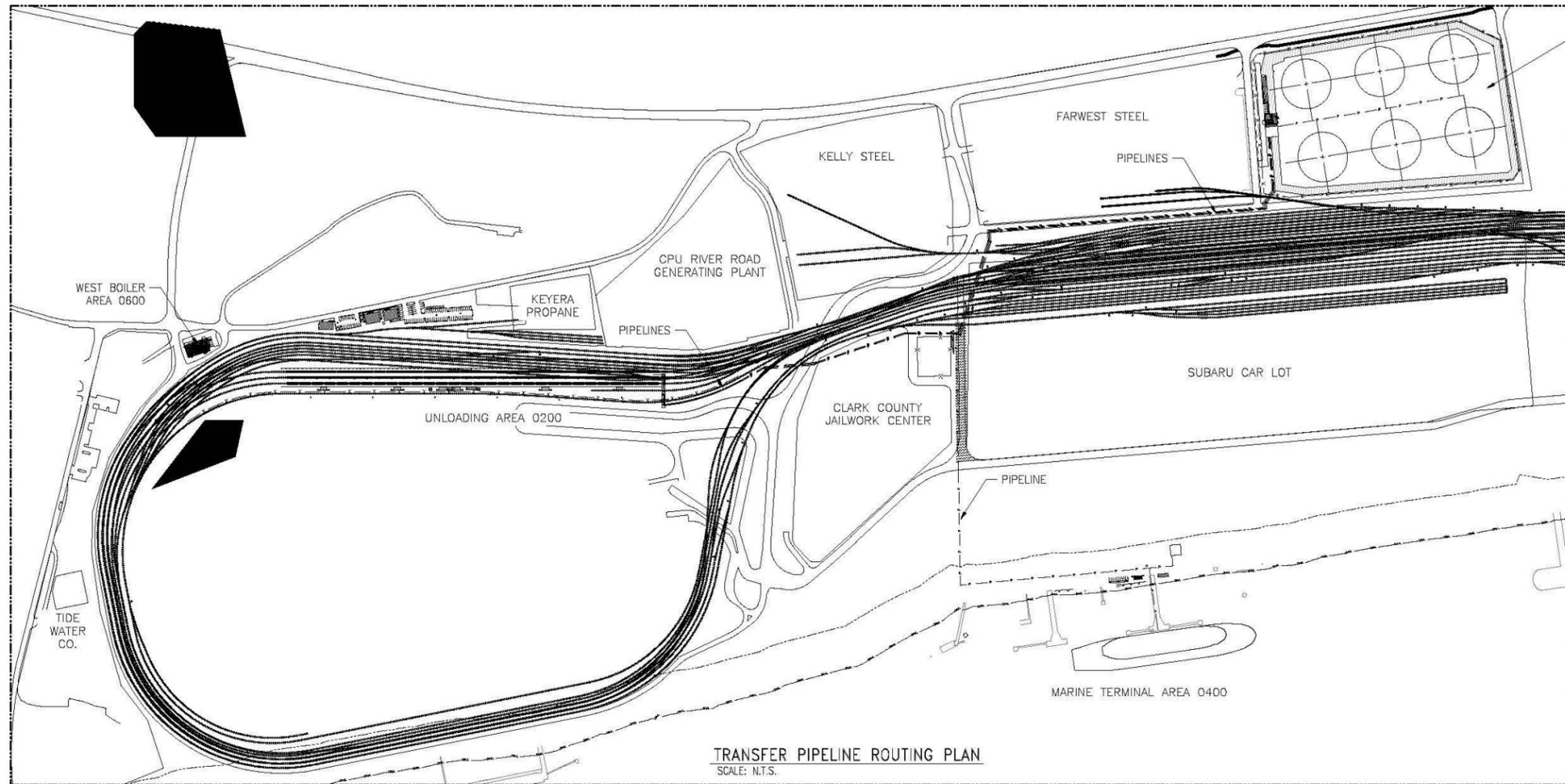
The 30 unloading stations with the ability to heat crude oil unit trains also will be equipped with steam connections to heat the crude oil to decrease its viscosity and allow it to flow more easily. Steam will be produced in the Area 600 Boiler Building (described in section 2.3.6 below) and piped to the unloading facility. Tank cars that receive steam will be fitted with permanent internal steam manifolds at the bottom of the car. Inlet steam hoses will be connected to each car to allow steam to circulate in the manifold, thereby warming the contents of the tank car. Steam condensate exiting the manifolds will be collected via condensate hoses, and piped back to the steam boilers in a closed loop system. The cars will be heated to approximately 150 degrees F.

Unloading and conveyance of the crude oil will be conducted so as to prevent exposure of the oil to the ambient atmosphere at all times from when it leaves the rail car to when it enters the storage tanks. During the entire unloading process, neither the crude oil nor crude oil vapors will be directly openly exposed to the atmosphere.

Flexible vent hoses will be manually connected to a valve at the top of the car accessed by a movable gangway. The vent hoses will connect to the collection header. Vapors leaving the collection header as oil flows into the header will travel through the vent hose to the car as the crude oil drains from the car. This prevents vapors from being vented to the atmosphere.

Unloading hoses will be manually connected to the valves on the cars using dry fit connectors, one hose per tank car. Dry fit connectors are designed so that the crude oil in the hose cannot come into contact with the atmosphere. The connector is designed such that crude oil will not flow without a secure connection. Each hose will be equipped with an automatic shutoff valve. Once the dry fit connector has been secured, the crude oil will gravity-drain from the cars to a collection header. The hoses will also have an emergency shutdown (ESD) valve before the collection header. The valve will automatically close during a fire or if an ESD button is depressed in the building. Buttons are located at the bottom of all the stair landings and in between stations on the upper mezzanine.

The collection header collects the flow from a grouping of six cars. The collection headers will be housed in below-grade trenches running parallel to the rail tracks. A single 9-foot-wide by 5-foot-deep trench will serve tracks 4106 and 4107; a 7-foot-wide by 5-foot-deep trench will serve track 4105. Although the primary purpose of the trench is to house the product collection header, spill collection line and electrical and data lines, the trench will also act as secondary containment.



LEGEND	
PUBLIC ROADS	—————
PRIVATE ROADS	—————
EXISTING RAIL	—————
NEW RAIL	—————
NEW RAIL (SAVAGE MANAGED)	—————
ORDINARY HIGH WATER LINE*	—————
PIPE LINE	—————
STRUCTURES	—————

*ORDINARY HIGH WATER LINE IS APPROXIMATE AND IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.

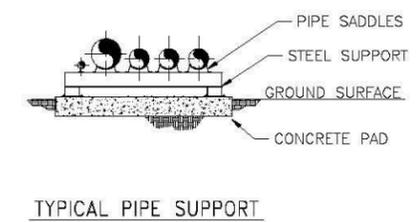
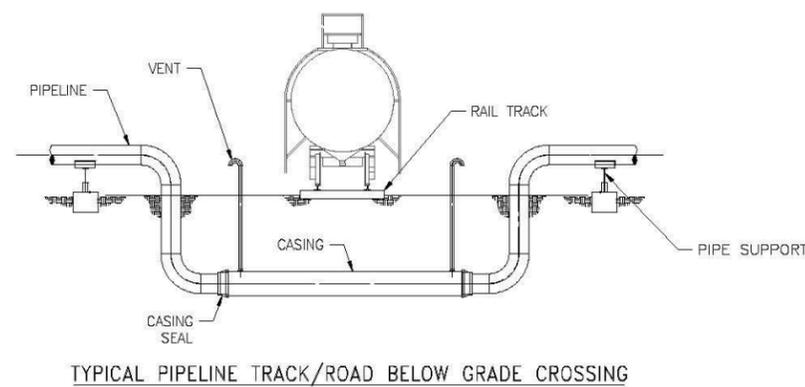
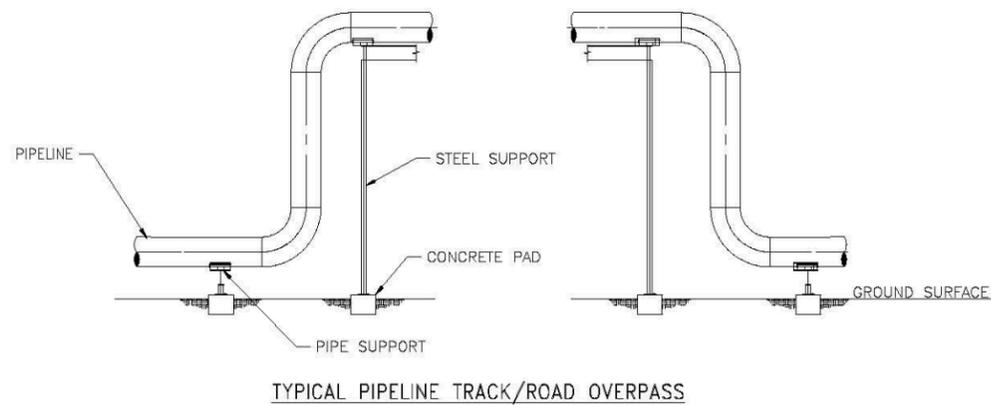


Figure 2.3-8. Transfer Pipeline (Revised)

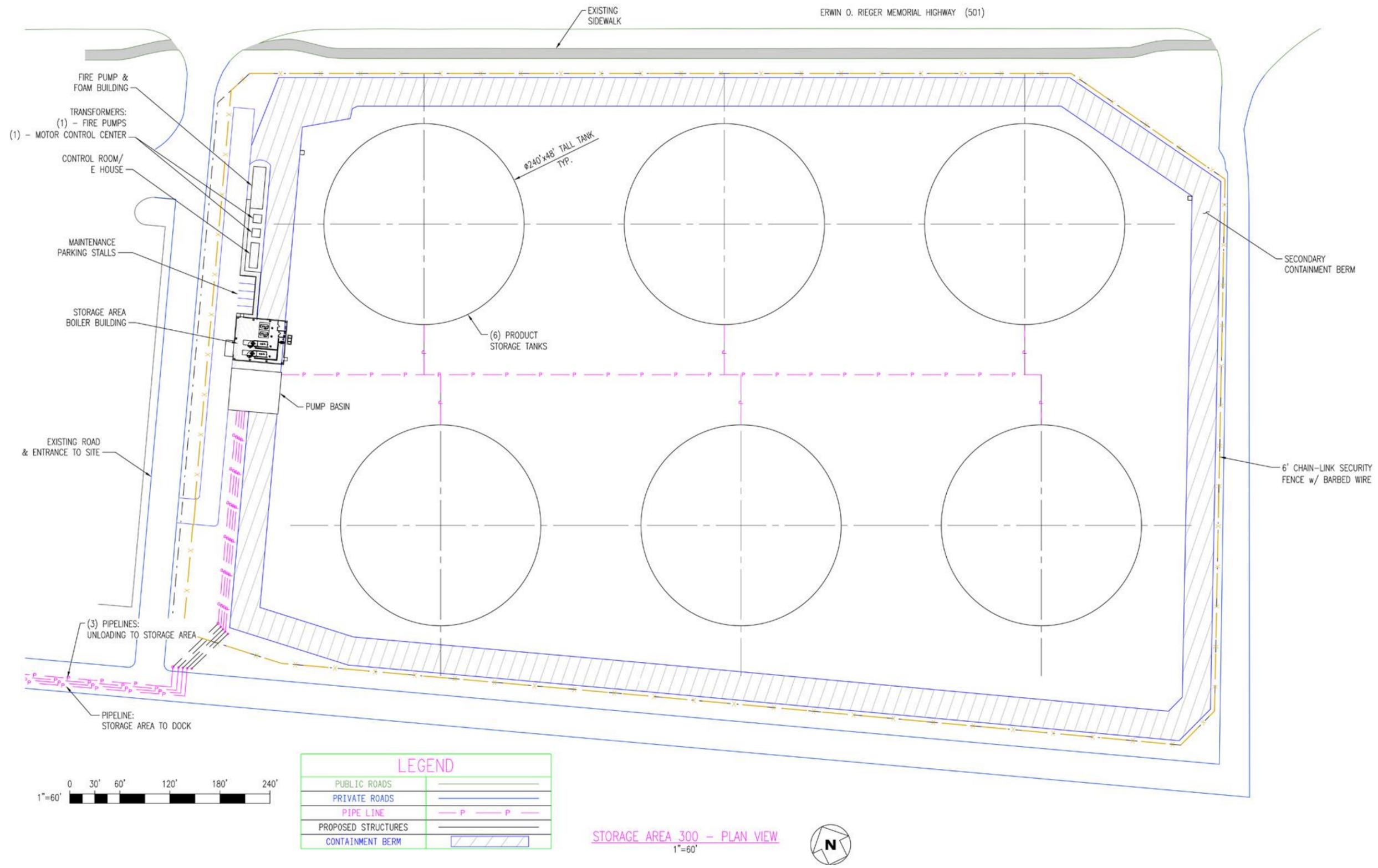


Figure 2.3-9. Storage Tanks

Each collection header is directly connected to a dedicated pumping station which transfers the crude oil into a 24-inch-diameter transfer pipeline (one per track), which will collect the flow from all five pump basins on that track. As the crude oil flows from the collection header to the pumping stations, it will pass through a basket strainer to remove solids that may be present. The pumping stations monitor volumetric flow rate, crude oil density, and contaminants (sediment and water), and collect regular samples of the crude oil for analysis. The pumps are housed in pump basins beneath the rail unloading building. Each of the five pump basins serving Tracks 4106 and 4107 will measure approximately 16 feet wide by 55 feet long and 15 feet deep. The five pump basins serving track 4105 will measure approximately 16 feet wide by 51 feet long and 15 feet deep. Two pumps will serve each offloading header, with one acting as a primary and the second as an on-line spare on standby. During pumping, the crude oil will not come into contact with the vaults; however, the pump basins will serve as secondary containment. The trenches and pump basins will be constructed of concrete, coated with sealant and include chemical resistant joint sealant. The trenches will be designed with a water stop at the concrete joints; the water stop will prevent groundwater from entering the trench, and will hold water collected within the trench, making the trenches watertight.

The discharge of all five unloading pumping stations will be combined into one 24-inch-diameter transfer pipeline per track, which will convey the crude oil to the storage tanks in Area 400. This transfer pipeline is part of Area 500 and is described in detail below. There will be a total of two non-heated 24-inch transfer pipelines from the non-heated unloading stations to the storage area inlet manifold. The discharge from the pumping stations with the potential for heating will be combined into a separate heat-traced and insulated, 24-inch transfer pipe to the storage area heated inlet manifold.

Unloading Facility Pedestrian Access

One pedestrian bridge will provide access for workers from the Administrative/Support Buildings, over the existing Terminal 5 rail loops, and to the interior of the rail loop. An additional four pedestrian bridges will allow workers to pass over the unit trains once they are inside the rail car unloading facility. The pedestrian bridges will be grated and a minimum of 3 feet wide to facilitate emergency access.

Rail Car Unloading Facility Spill Holding Tanks

Approximately two holding tanks, with a total capacity of approximately 900 barrels, will be constructed adjacent to the administrative/support area. These tanks will be connected, and will provide secondary containment, to a piping system that will receive inadvertent releases captured in the collection pans. The combined volume of the tanks is sized to contain the entire contents of a single tank car. Crude oil captured in a collection pan will flow by gravity into a dedicated line, and will be conveyed from the unloading facility to the containment tanks. The tanks will be covered, constructed of steel, and anchored in accordance with applicable seismic design requirements. The tank contents will be disposed of or recycled at an offsite facility with the ability to handle the waste.

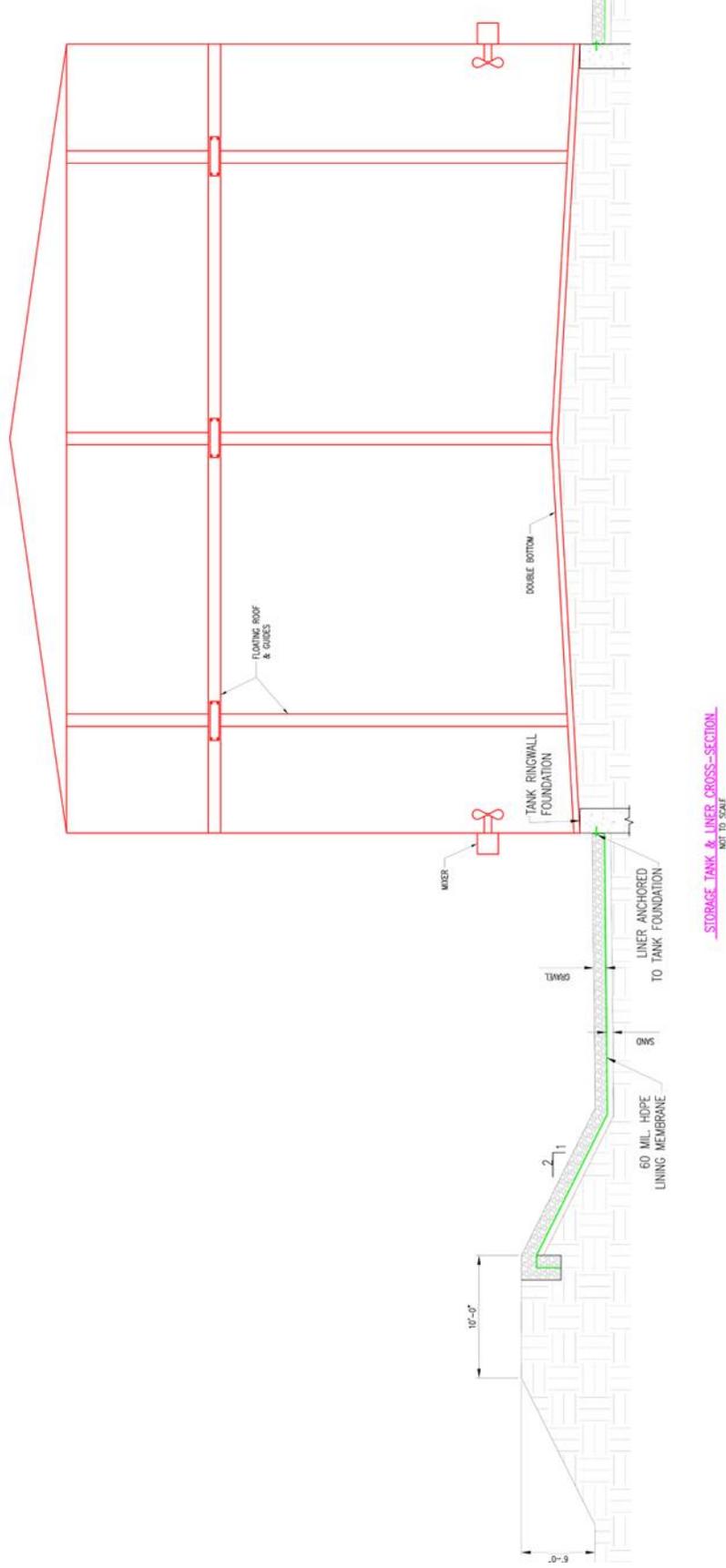


Figure 2.3-10. Containment Berm Cross Section

E-Houses, Transformer, Air Compressor, and Fire Pump and Foam Building

The following elements will be located in Area 200 (see Figure 2.3-2), and will support the unloading operations,

The unloading process will be controlled from six control rooms/E-houses. The integration of the control functions of these E-houses is described in detail in section 2.3.6.1 below. Each of these E-houses will be approximately 825 square feet with a maximum height of 15 feet.

Two transformers will regulate electrical output to the unloading facility. Both will be pad-mounted on 225-square foot pads.

A fire pump and foam building will house an emergency fire pump and fire protection systems associated with the unloading facility. A small storage tank of 500 gallons or less will be located adjacent to the emergency fire pump to hold ultra-low sulfur diesel fuel. The single-story building will have an approximate footprint of 750 square feet. Fire suppression systems associated with the unloading building are described in detail in section 4.1.3.4.

2.3.4 Administrative and Support Buildings

The proposed project will require three approximately 3,400-square-foot office buildings for administrative functions, lockers, restrooms, and other employee support facilities. These elements will be located on the north side of the Terminal 5 loop south of the existing private road. Parking and landscaping will be provided per City standards. To direct the flow of visitors, signage identifying the Facility will be located in the vicinity of the administrative and support buildings, or the Area 600 West Boiler. Additional signage may also be included at existing common Port entrance locations where the Port manages signs for multiple tenants.

2.3.5 Area 500 – Transfer Pipelines

A combination of above- and belowground steel transfer pipelines will convey crude oil from the rail unloading building in Area 200 to the storage tanks in Area 300 and from the storage tanks to the marine vessel loading system in Area 400. Figure 2.3-9 illustrates the transfer pipeline alignment. At full capacity, the system will include the following:

- Up to three 24-inch-diameter, approximately 1,800-foot-long pipes will collect the crude oil unloaded at the rail unloading stations; one of these pipelines will be electrically heat-traced to ensure that the viscosity of the crude oil will be maintained at approximately 150 degrees F as it is conveyed out of the unloading building.
- Three 24-inch-diameter, approximately 5,500-foot-long pipelines will connect the rail car unloading facility to the storage tanks in Area 300; one of these pipes will be electrically heat-traced to ensure that the viscosity of the crude oil requiring heating will be maintained from the unloading facility to the storage area.
- One 36-inch-diameter, approximately 5,300-foot-long pipeline will connect the storage tanks with the vessel loading system in Area 400.
- One 6 to 12 -inch-diameter, approximately 5,300-foot-long pipeline will return crude oil from the vessel loading system back to the storage tanks; this pipeline is provided to handle

loading process shutdowns and provide pressure relief and prevent pipe hammer in the pipe conveyance system.⁵

- One 16- to 22-inch-diameter, approximately 600-foot-long pipe will deliver hydrocarbon vapor generated during loading of vessels to the MVCU (described in section 2.3.7).

Piping will be constructed of American Standards Testing and Materials (ASTM) A53 or A106 pipe. Aboveground runs of piping will be supported so that the bottom of the piping is approximately 2 feet off the ground on vertical supports located every 20 to 25 feet. The vertical supports will be fixed on spread footings (see Detail B Figure 2.3-15). Where multiple pipes are placed within the routing pipelines may be either laid side-to-side, or stacked. Figure 2.3-8, includes a detail of the typical arrangement of an overhead crossing. Expansion loops will be constructed throughout the transfer pipeline runs to accommodate for thermal expansion of the pipelines during operation. The typical configuration of a pipeline expansion loop is shown in Figure 2.3-8. Where road or rail crossings occur and in other limited areas, the piping will be housed in underground steel casings or raised above ground for standard American Railway Engineering and Maintenance-of-Way Association (AREMA) clearances. Secondary containment with leak detection will be provided for pipe installed underground (as shown in Figure 2.3-8). Runs of aboveground pipeline will be standard-walled, to ensure ease of inspection and maintenance, and in accordance with the applicable requirements of WAC 173-180-340 and 49 Code of Federal Regulations (CFR) 195.246 through 49 CFR 195.254. Piping will be cathodically protected and coated to prevent corrosion.

To allow greater flexibility in operations, the transfer piping system will be designed to allow crude oil being unloaded in Area 200 to be directly conveyed to the Area 400 Marine Terminal for loading onto vessels. This capability will allow occasional topping off of vessel loads, and may allow the Facility to begin limited operation during the construction of the Area 300 storage tanks.

The piping system and associated supports and foundations will be designed to applicable seismic protection standards (as detailed in Section 2.18.2), and will be electrically grounded to protect against the buildup of static electricity during crude oil conveyance. Manual and automatic isolation valves will be located on the piping system at the exit of the rail car unloading facility and at the entrance to the storage tank area. Annual hydrostatic testing on over-water portions will be conducted to meet applicable regulatory requirements and industry standards. The pipeline system will be inspected on a routine basis.

⁵ Pipe hammer or transient pressure wave is the momentary increase in pressure which occurs in a liquid pipe system when there is a sudden change of direction or velocity of the liquid. When a rapidly closed valve suddenly stops flow in a pipeline, pressure energy is transferred to the valves and piping.

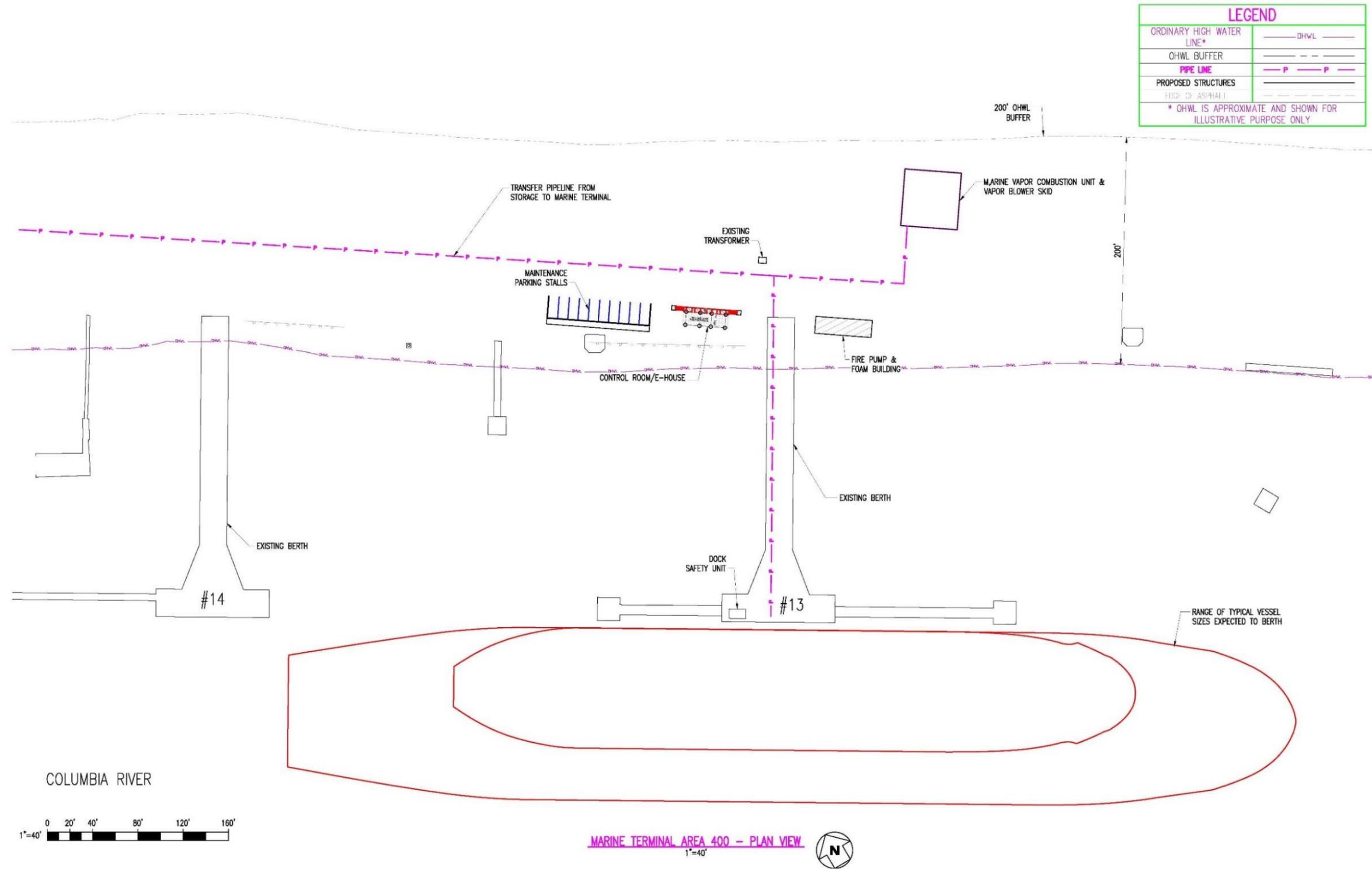


Figure 2.3-11. Marine Terminal (Revised)

2.3.6 Area 300 – Storage

Storage Tanks

The crude oil will be stored in up to six double-bottom, internal floating-roof aboveground storage tanks (ASTs) located in Area 300 (see 2.3-9). These tanks will be approximately 48 feet in height and 240 feet in diameter, with a shell capacity of approximately 380,000 barrels each. The maximum amount of product stored in each tank will be approximately 360,000 barrels, to take into account the presence of the internal floating roof and the additional headspace required to allow product movement in the event of seismic conditions. The working capacity of the tanks will be approximately 340,000 bbl⁶. The tanks will be painted white. A typical cross-section of a storage tank is included in Figure 2.3-10.

The ASTs will be erected in the field and constructed per API Standard 650. AST features include a uniformly supported flat bottom, welded carbon steel construction, and control of crude oil temperature and internal tank pressure to API specifications, and will use appropriate live load characteristics for roof design. Two of the tanks may be equipped with steam manifolds constructed into the bottom of the tanks so that the contents of the tanks can be heated to approximately 150 degrees F to control viscosity during loading and unloading viscosity of oils that may require heating. All of the tanks will be equipped with mixers to prevent crude oil from stratifying during storage.

Each tank will have a fixed roof to keep precipitation from reaching the inside of the tank and an internal floating roof with dual seals to control vapor emissions to the atmosphere. The floating roof will be designed to avoid tipping during operations.

The first tank floor provides primary containment and the second floor acts as secondary containment until actions are taken to abate the source of any discharge. The interstitial space within the double-bottomed tanks will include a leak detection system. The tanks will also be cathodically protected to prevent corrosion.

Containment Berm

The tanks will be surrounded by a containment berm approximately 6 feet in height. The containment area will be designed with a capacity at least equal to 110 percent of the volume of the largest tank plus precipitation from a 24-hour, 100-year storm event. This capacity reflects the most stringent of Washington spill prevention and control and National Fire Protection Association (NFPA) requirements and exceeds the requirements for secondary containment under 40 CFR 112.7. The 18-inch-high intermediate berms will be installed within the larger area to separate each tank area from the larger containment area.

The entire tank containment area will be lined with an impervious membrane to prevent any spills from leaving the containment area via the ground. Figure 2.3-11 illustrates a typical cross section of the berm wall and liner system. Stormwater collected within the bermed area will gravity-drain to the berm area sump. The sump will house three pumps to convey the stormwater through a treatment system before it discharges to the existing Port stormwater conveyance system. Treatment will consist of a hydrodynamic separator, an oil-water separator, and finally a

⁶ Although the tanks could hold approximately 360,000 bbl, in actual operation internal floating roof tanks are never completely full. The working capacity of the tanks is slightly lower than the total capacity to reflect the maximum volume that each tank will actually hold during operation.

water quality vault. Prior to pumping water out of the sump to the treatment and stormwater system, a visual inspection will be conducted to detect the presence of an oil sheen. If no oil sheen is detected, the sump pumps will be started manually; the pumps will shut off automatically when the low level is reached. If oil products are identified through visual inspection, the sump will be emptied to vacuum trucks, and the oily water disposed of or recycled off site at a permitted location. The stormwater collection and treatment system is described in additional detail in section 5.2.

Tank to Dock Product Conveyance Pumps

Crude oil stored in the tanks will be pumped to the dock for transfer to a ship or barge. Three to six variable speed pumps will pump the crude, with at least one on standby. The pumps will be housed in the tank storage pump basin located on the west side of the storage tank area; the basin will measure approximately 58 by 58 feet square and 12 feet deep. It will be equipped with two sump pumps to evacuate any stormwater that collects in it. Stormwater evacuated from the pit will be routed through the treatment and discharge system associated with the containment berm sump described above.

E-Houses, Transformer, Air Compressor, and Fire Pump and Foam Building

The following elements will be located along the west side of the Storage Area (see Figure 2.3-10), and will provide support to storage operations.

The storage and pumping of crude oil to vessel loading in Area 400 operations will be controlled from a control room/E-house. The integration of the control functions of this E-house is described in detail in section 2.3.6.1 below. This E-house will have a footprint of approximately 1,250 square feet and will be single story.

Two transformers will regulate electrical output to the storage area. Both will be pad-mounted on approximately 210-square-foot concrete pads.

A fire foam skid and fire water pump house will contain an emergency fire pump and fire protection systems associated with the storage operations. A small storage tank of 500 gallons or less will be located adjacent to the emergency fire pump to hold ultra-low sulfur diesel fuel. The fire foam skid will have a footprint of approximately 180 square feet; the fire water pump house will have a footprint of approximately 750 square feet and will be single-story. Fire suppression systems associated with the unloading building are described in detail in section 4.1.3.4.

A building will house a primary and a standby natural gas fired boilers, each with a capacity of 13.2 million British thermal units per hour (MMBTU/hr) to provide steam (one boiler operating) for the heating of two storage tanks. Boiler systems will be field-erected or package boilers with a fire- or water-tube design. Natural gas will be supplied to the boiler buildings from the existing pipeline serving the area. Steam from the boilers will be delivered to the point of use via insulated pipelines. The gas-fired boiler may also provide steam to pipes and ancillary equipment and potential space heating. The boilers will be designed, installed and operated in accordance with the applicable provisions of Labor and Industry's Boiler and Unfired Pressure Vessel laws (RCW 70.79) and rules (WAC 296-104).

The following elements will also be located in Area 400 (see Figure 2.3-11), and will support the marine vessel loading operations. The loading process will be controlled from a control room/E-house. The integration of the control functions of these E-houses is described in detail in section 2.3.7 below. The E-house will be approximately 825 square feet with a maximum height of 15 feet. One transformer will regulate electrical output to the unloading facility. It will be pad-mounted on a 225-square-foot pad. A fire pump and foam building will house an emergency fire

pump and fire protection systems associated with the marine terminal. A small storage tank of 500 gallons or less will be located adjacent to the emergency fire pump to hold ultra-low sulfur diesel fuel. The single-story building will have an approximate footprint of 750 square feet.

2.3.7 Area 400 - Marine Terminal

Dock Improvements

Crude oil will be transferred to vessels at berths 13 and 14. The berths are existing steel pile-supported docks consisting of two concrete decked access trestles and T-docks, four breasting dolphins connected to the trestles by catwalks, and three mooring dolphins which are in good working order. To obtain an optimal mooring configuration and to meet current seismic standards, the following work will be required at the existing berth 13 to accommodate the Facility.

- Remove a single breasting dolphin including 11 (of 12) 18-inch steel pipe piles, four 12-3/4-inch steel fender piles and approximately 400 square feet of existing concrete pile cap.
- Remove approximately 1,370 square feet of grated walkway associated with the existing breasting dolphin to be removed.
- Reinforce the existing 18-inch steel pipe piles supporting the Berth 13 T-dock, two breasting dolphins and two mooring dolphins including the removal and replacement of the decking and piles caps to accommodate the reinforcement work.
- Replace the existing steel trusses and grated steel walkways between the Berth 13 platform and the adjacent upstream and downstream breasting dolphins with larger structural steel trusses and new grated steel walkways.
- Add approximately 750 square feet of new retractable grated walkways between two existing mooring dolphins and the shoreline to provide safe access for line handling.

Mooring and Breasting Dolphins and Walkways

The project will remove an existing breasting dolphin and approximately 650 linear feet of existing 5-foot-wide steel grated walkways on Berth 14 which interferes with the optimal safe mooring configuration. The existing dolphin is supported by 12, 18-inch-diameter steel pipe piles and includes 4, 12-inch steel fender piles. One section of the walkway is also supported by a single 18-inch-diameter steel pipe pile, which along with one pile from the mooring dolphin will remain in place for attaching the required boom.

Two existing mooring dolphins will be connected to the shoreline by 5-foot-wide grated walkways to allow safe access during vessel mooring. The walkways will be retractable and will be positioned on the shoreline above the OHWM except during vessel mooring. During vessel mooring, the total area overwater resulting from these modifications will be approximately 750 square feet.

To provide an optimal safe mooring configuration, two shore-based mooring points will be installed above the OHWM. Quick release mooring hooks will be installed on a concrete base to handle mooring lines. In addition, steel tie back wires will extend from the two shore based mooring points and two new tie-back anchors to the existing mooring dolphins. These wires will serve to withstand forces imposed on the mooring dolphins from the vessels while in berth. New quick release mooring hooks will be installed on all mooring points. The mooring system will incorporate a load monitoring system for the physical tensioning of the mooring lines so that they operate within optimum design limits while a vessel is berthed.

Seismic Upgrades

To meet current seismic standards the current dock will be strengthened. To increase pile capacity the existing 18-inch steel piles associated with the Berth 13 T Dock and two associated breasting dolphins and two mooring dolphins will be improved. Ground anchors will be installed at the base of the existing piles and a smaller diameter steel pile and concrete will be installed in the existing piles. To accommodate this work the existing concrete deck (pre-cast panels) and pile caps will be removed to expose the tops of the piles. Steel braces will also be installed between the piles beneath the deck. Finally, the pile cap and decks will be reconstructed with poured in place concrete and/or structural steel framing depending on the location.

The existing grated walkways and associated support trusses that connect the breasting dolphins east and west of the Berth 13 dock will be replaced with larger steel trusses to physically connect the structures and provide additional strength. The trusses will be constructed of square or tubular pipe in an open web design that will allow for significant light penetration. This framing will add approximately 920 square feet of overwater structure. In-kind replacement 5-foot-wide steel grated walkways will be installed on top of the trusses.

Dock-Side Loading Equipment

Piping, jib cranes, a moveable gangway, an observation and control platform, dock safety unit, pipe trays, skiff, containment, boom reel, and lighting will be installed on the existing dock that serves berths 13 and 14.

The 36-inch transfer pipeline from and 6- to 12-inch return line to the Storage Area will be located on the trestle where they will connect with a manifold on the dock. Hoses supported by cranes or a pulley system will be connected to the manifold and used to transfer the crude oil from the piping system to the vessel being loaded. The hoses will be connected to the grounding grid to protect against the buildup of static electricity. The loading system will incorporate automatic shutoff valves with a maximum 30-second shutoff time. The pipelines serving the dock will undergo annual hydrostatic testing as required by federal standards. A catchment and sump capable of holding 3 bbls of discharge will be constructed at or below the deck level for the containment of inadvertent releases in addition to stormwater that may fall in the catchment area. The containment will be discharged within 1 hour of completion of any transfer by pumping into the return line.

A fire pump and foam building located near the Dock-side control house will house an emergency fire pump and fire protection systems associated with the marine terminal. A small storage tank of 500 gallons or less will be located adjacent to the emergency fire pump to hold ultra-low sulfur diesel fuel. The single-story building will have an approximate footprint of 750 square feet.

A fence boom will be placed between the vessel location and the shoreline. Floating booms will be deployed after a vessel is at the berth and will connect with the fence boom on the downstream and will be open on the upstream offshore side of the moored vessel due to currents.

Marine Vapor Combustion Unit

Marine vessels will generally arrive at the berth empty with inert (noncombustible) gases occupying the tank. When the vessel tanks are filled with crude oil, the vapors from previous cargo, vapors from the crude being added to the tank, and the inert gases will be displaced from the tank. These vapors will be sent to the MVCU system, which will combust the hydrocarbons in the vapors. Piping from the dock will convey the vapors to the MVCUs located north of the access trestle and roadway. Up to eight units will be installed on a 100- by 50-foot concrete slab

housing equipment including eight 8-foot-diameter steel stacks approximately 25 feet in height. The MVCU is described in more detail in sections 2.12 and 5.1.

2.3.8 Area 600 – West Boiler

The Area 600 West Boiler Building will be located west of the Administration and Support Buildings. This building will have a footprint of approximately 6,000 square feet, and will be approximately 45 feet high. The building will house two primary and one standby natural gas-fired boilers, each with a capacity of 62 MMBTU/hr, to provide steam (two boilers operating) for the heating of tank cars during unloading. Boiler systems will be field-erected or package boilers with a fire- or water-tube design. Natural gas will be supplied to the building from the existing pipeline serving the area. Steam from the boilers will be delivered to the point of use via insulated pipelines. The gas-fired boiler may also provide steam to pipes and ancillary equipment and potential space heating. The boilers will be designed, installed and operated in accordance with the applicable provisions of Labor and Industry's Boiler and Unfired Pressure Vessel laws (RCW 70.79) and rules (WAC 296-104).

Boiler System Water Treatment

Potable water from the City will be treated with a standard commercial water softener arrangement. The softened water will then be treated, as needed, with a scale inhibitor similar to Nalco NexGuard 22310, a corrosion inhibitor similar to Nalco Tri-Act 1820, and an oxygen scavenger similar to Nalco 1720. The pH will be adjusted, as needed, using a product similar to Nalco 8735.

Boiler Blowdown Pretreatment

Boiler blowdown will not be treated other than to reduce its temperature below 140°F prior to discharge into the sanitary sewer system.

2.3.8.1 Control Systems

The primary and secondary control systems of the Facility will manage the flow of product from the unloading facility to the storage tanks and finally to the marine loading facility and control the Facility fire protection systems. The primary control system will be located in the E-houses constructed adjacent to the rail car unloading elements. The primary control system will monitor and control the tank car unloading operations and transfer of the product to the storage tanks. The secondary control system will be located adjacent to the dock. This system will control the flow of product from the storage tanks to the marine loading system. The primary control system will be able to override the secondary system. An additional E-house will control the operations of the Area 300 Boiler Building and the adjacent facilities supporting storage operations. Separate fire suppression control and gas detection systems will be provided at Areas 200, 300, and 400.

2.3.9 Decommissioning

The project is designed for an anticipated lifetime of 20 years. At the end of the term of the lease, the Port will own the improvements on the lease areas. The Port has the option to request the removal of all or none of the improvements unless mutually agreed to at the time. Based on the nature and extent of removal or retention, the Applicant may pursue an amendment to the Site Certification or if the site no longer operates in such a manner to trigger the need to terminate the agreement as authorized by WAC 463-66-20.

In accordance with WAC 463-72 040, at least ninety days prior to the beginning of site preparation, the Applicant will provide an initial site restoration plan to EFSEC which addresses

site restoration occurring at the conclusion of the plant's operating life, or in the event the project is suspended or terminated during construction or before it has completed its useful operating life. The plan will parallel a decommissioning plan, if such a plan is prepared for the project. The initial site restoration plan will be prepared in sufficient detail to identify, evaluate, and resolve all major environmental and public health and safety issues presently anticipated. It will describe the process used to evaluate the options and select measures that will be taken to restore or preserve the site or otherwise protect all segments of the public against risks or danger resulting from the site. The plan will include a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk and will address provisions for funding or bonding arrangements to meet the site restoration or management costs. The provision of financial assurances will include evidence of pollution liability insurance coverage in an amount justified for the project, and a site closure bond, sinking fund, or other financial instrument or security in an amount justified in the plan.

Should the Applicant seek a termination of the Site Certification Agreement at the end of the Facility lifetime, in accordance with WAC 463-72-050 the Applicant will submit a detailed site restoration plan within ninety days from the time EFSEC is notified of the termination. The detailed site restoration plan will address the elements required to be addressed in WAC 463-72-040, in detail commensurate with the time until site restoration is to begin.

2.3.10 Capital and Construction Costs

The total estimated capital cost of the Facility will be approximately \$110 million, which includes both capital and construction costs.

Section 2.4 – Energy Transmission Systems

WAC 463-60-155

Proposal – Energy transmission systems.

The application shall identify the federal, state, and industry criteria used in the conceptual design, route selection, and construction for all facilities identified in RCW 80.50.020 (6) and (7), and shall indicate how such criteria are met.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-155, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1). 83-01-128 (Order 82-6), § 463-42-155, filed 12/22/82. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-155, filed 10/8/81. Formerly WAC 463-42-240.)

Section 2.4 Energy Transmission Systems

As noted in WAC 463-60-155, the definitions from RCW 80.50.020(6) and (7) are for “Certification” and “Construction” but neither applies directly to this WAC. Prior to the reorganization of the definitions to alphabetical order, RCW 80.50.020(6) defined “Associated Facilities” and RCW 80.50.020(7) defined “Transmission facility.”

Associated Facilities is now defined by RCW 80.50.020(4) as:

‘Associated facilities’ means storage, transmission, handling, or other related and supporting facilities connecting an energy plant with the existing energy supply, processing, or distribution system, including, but not limited to, communications, controls, mobilizing or maintenance equipment, instrumentation, and other types of ancillary transmission equipment, off-line storage or venting required for efficient operation or safety of the transmission system and overhead, and surface or subsurface lines of physical access for the inspection, maintenance, and safe operations of the transmission facility and new transmission lines constructed to operate at nominal voltages of at least 115,000 volts to connect a thermal power plant or alternative energy facilities to the northwest power grid. However, common carrier railroads or motor vehicles shall not be included.

“Transmission Facility” is now defined by RCW 80.50.020(21) as:

‘Transmission facility’ means any of the following together with their associated facilities:

- (a) Crude or refined petroleum or liquid petroleum product transmission pipeline of the following dimensions: A pipeline larger than six inches minimum inside diameter between valves for the transmission of these products with a total length of at least fifteen miles;*
- (b) Natural gas, synthetic fuel gas, or liquefied petroleum gas transmission pipeline of the following dimensions: A pipeline larger than fourteen inches minimum inside diameter between valves, for the transmission of these products, with a total length of at least fifteen miles for the purpose of delivering gas to a distribution facility, except an interstate natural gas pipeline regulated by the United States federal power commission*

The Facility does not involve the construction of facilities that connect the Facility with an existing energy supply nor does it involve the construction of pipelines with a length of more than 15 miles for product transmission. Pursuant to WAC 463-60-115, the Applicant requests a waiver of the application requirements of WAC 463-60-155.

Section 2.5 – Electrical Transmission Facilities

WAC 463-60-160

Proposal – Electrical transmission facilities.

(1) Prior to submitting an application for site certification for an electric transmission facility under RCW 80.50.060(3) an applicant shall follow the procedure as set in Chapter 463-61 WAC.

(2) An application for an electric transmission facility shall include the information required by this chapter unless the requirement may not be applicable to such a facility.

(3) An application for an electrical transmission facility shall include the results of any preapplication negotiations including any agreements between the applicant and cities, towns, or counties where the electrical transmission facility is proposed to be located.

(Statutory Authority: Chapter 80.50 RCW and RCW 80.50.040. 09-05-067, § 463-60-160, filed 2/13/09, effective 3/16/09.)

Section 2.5 Electrical Transmission Facilities

RCW 80.50.060(3) reads as follows:

(3)(a) The provisions of this chapter apply to the construction, reconstruction, or modification of electrical transmission facilities when:

(i) The facilities are located in a national interest electric transmission corridor as specified in RCW 80.50.045;

(ii) An applicant chooses to receive certification under this chapter, and the facilities are: (A) Of a nominal voltage of at least one hundred fifteen thousand volts and are located in a completely new corridor, except for the terminus of the new facility or interconnection of the new facility with the existing grid, and the corridor is not otherwise used for electrical transmission facilities; and (B) located in more than one jurisdiction that has promulgated land use plans or zoning ordinances; or

(iii) An applicant chooses to receive certification under this chapter, and the facilities are: (A) Of a nominal voltage in excess of one hundred fifteen thousand volts; and (B) located outside an electrical transmission corridor identified in (a)(i) and (ii) of this subsection (3).

(b) For the purposes of this subsection, "modify" means a significant change to an electrical transmission facility and does not include the following: (i) Minor improvements such as the replacement of existing transmission line facilities or supporting structures with equivalent facilities or structures; (ii) the relocation of existing electrical transmission line facilities; (iii) the conversion of existing overhead lines to underground; or (iv) the placing of new or additional conductors, supporting structures, insulators, or their accessories on or replacement of supporting structures already built.

The Facility will not generate or transmit electricity, pursuant to WAC 463-60-115, nor will it construct transmission facilities as defined under RCW 80.50.060(3). The Applicant requests a waiver of the application requirements of WAC 463-60-160.

Section 2.6 – Water Supply System

WAC 463-60-165 Proposal – Water supply.

1) *Water intake and conveyance facilities. The application shall describe the location and type of water intakes, water lines, pipelines and water conveyance systems, and other associated facilities required for providing water to the energy facility for which certification is being requested.*

(2) *Water supply and usage alternatives. (a) The applicant shall consider water supply alternatives, including use of reclaimed water, water reuse projects, and conservation methods. The application shall describe all supply alternatives considered, including the associated cost of implementing such alternatives, and the resulting benefits and penalties that would be incurred. (b) The application shall include detailed information regarding using air cooling as an alternative to consumptive water use, including associated costs. (c) The application shall describe water conservation methods that will be used during construction and operation of the facility.*

(3) *Water rights and authorizations. An applicant proposing to use surface or groundwater for the facility shall describe the source and the amount of water required during construction and operation of the energy facility and shall do one or more of the following: (a) Submit a water use authorization or a contractual right to use water supplied by a municipal corporation or other water purveyor; or (b) Submit a water right permit or water right certificate issued by the department of ecology for the proposed facility in an amount sufficient to meet the need of the facility. If the permit and/or certificate has been issued five years prior to the submittal date, the applicant shall provide evidence that the water right permit is in good standing, or that the certificate has not relinquished through nonuse; or (c) For applications for new surface or groundwater withdrawals, or applications for water right changes or transfers of existing rights or certificates for withdrawal, the applicant shall submit appropriate application(s) for such rights, certificates or changes in rights and certificates, to the department of ecology prior to submittal of the application for site certification to the council. The application for site certification shall include report(s) of examination, identifying the water rights, or water right changes, submitted to and under review by the department of ecology, the quantities of water in gallons per minute and acre feet per year that are eligible for change, together with any limitations on use, including time of year. The report(s) of examination shall also include comments by the Washington state department of fish and wildlife with respect to the proposed water right applications under review by the department of ecology. (d) Mitigation. The application shall contain a description of mitigation proposed for water*

supply, and shall include any and all mitigation required by the department of ecology pursuant to the review of water rights or certificates, or changes to water rights or certificates required in (c) of this subsection.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-165, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1). 92-09-013, § 463-42-165, filed 4/2/92, effective 5/3/92. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-165, filed 10/8/81. Formerly WAC 463-42-400.)

Section 2.6 Water Supply System

The Facility will require potable water for domestic purposes, process water, and emergency fire suppression water. All water required for the Facility is proposed to be obtained from the City's water utility. The Facility will connect to the City's existing water distribution network and construct necessary water service connections.

2.6.1 Water Intake and Conveyance Facilities

The City's existing water distribution facilities are adjacent to or located on the site. The Facility's water service will be connected to the City's existing distribution network in accordance with the City's water design and construction requirements. Necessary water metering and cross-connection control will be installed at each of the connection locations between the on-site water facilities and the public water distribution system. Multiple water service connections will be constructed because of the multiple discontinuous areas that are part of the project.

The project will not require the development of new water sources. The City currently has water rights for 108 million gallons per day (mgd) and has developed supply capacity (without storage) of 80.6 MGD. The City's water supply is obtained entirely from groundwater sources using 40 existing wells spread across 72 square miles. Online system storage includes approximately 24.5 million gallons which equates to roughly 11 hours of maximum day demand. Current peak demand is approximately 55 mgd (Tyler Clary, City of Vancouver, Personal Communications, August 12). The City has provided a letter confirming that its supply and distribution system has sufficient capacity to accommodate the project. The letter is included in Appendix E.

2.6.2 Water Supply and Usage Alternatives

A brief review of available water supplies compared the City's and the Port's water systems. Both provide potable-quality water. Both obtain water from local aquifers, provide water treatment, and have storage facilities. However, the Applicant selected the City as the water supplier for the project. The City's system provides source supply, storage, and distribution system redundancy. A portion of the City's water system is shown in Figure 2.6-1.

Water reuse is included with the water treatment system and package boiler units described in section 2.6.4. The boiler plants proposed consist of a closed loop system in which a maximum 10 percent of the total boiler water is blowdown or lost to the atmosphere during condensation; the remaining 90 percent is reused in each steam cycle. The possibility of reusing treated wastewater from the City's Westside Wastewater Treatment Plant (WWTP) located approximately 1 mile east of Area 300 for the required process water was investigated. But because of the need for significant off-site pipeline improvements and additional water treatment to provide suitable process water, this possibility was determined to be infeasible.



Legend

- Transmission Mains
- Distribution Mains



Figure 2.6-1. Water Transmission Mains

2.6.3 Water Rights and Authorizations

The Facility is not requesting new water rights or authorizations. All water will be acquired from the City water utility. Anticipated annual water use is estimated to be 22 million gallons with a maximum daily water use of 87,400 gallons per day (gpd). A request for utility services was submitted to the City for the Facility. The City indicated in a response letter attached in Appendix E that the City has sufficient supply and distribution system capacity for the proposal.

Construction of the Facility is expected to utilize two 10,000-gallon water trucks per day for a total of 20,000 gallons each day. Testing and commissioning the pipelines, tanks, and water lines will require additional water for pipeline flushing and hydrostatic testing. Testing and commissioning the transfer pipelines and storage tanks will be sequenced to reuse as much testing water as possible on site. Assuming no water reuse, testing and commissioning will require a total of 98.4 million gallons of water. With reuse, a total of 20 million gallons of water is expected to be required for testing and commissioning.

2.6.4 Process Water

Process Industrial processes at the Facility are limited to the transfer and storage of crude oil. Process water for the Facility is limited to the boiler plants, miscellaneous part and equipment wash, and cooling water for the fire suppression pumps.

Two boiler plants, one each in Area 300 and Area 600, will provide steam to heat crude oil within the rail cars and storage tanks. The majority of the process water will be maintained in a closed loop system. However, some process water for the boilers will be necessary for makeup water to replenish the equivalent of steam lost in the system, blowdown water, cooling water, and water treatment. Some steam is lost during the condensate process as the water is returned to the boiler. Blowdown water is used for flushing particulates from the boiler system. Cooling water is used at the outlet of the boiler for temperature pre-treatment. Cleaning water softener used to polish the boiler feed water requires occasional batches of backwash. The total of all process water for the boilers, including all sources of process water, is summarized in Table 2.6-1.

Inside the rail unloading area (Area 200), there is a process water line for the occasional use of a single pressure washer to clean miscellaneous piping fittings, work surfaces, and equipment. At a maximum, the pressure washer will be rated for 5 gallons per minute (gpm). Conservative water use estimates for the miscellaneous part/equipment wash is included in Table 2.6-1.

The Rail Unloading Area, Storage Tanks, and Marine Terminal Areas are protected with emergency fire pumps. The fire pumps selected for this project require a heat exchanger and cooling water supply to maintain operational engine temperatures. A maximum 35 gpm of cooling water supply is required each week for the required 30-minute maintenance cycling. Once a year fire pump flow testing is additionally required. Fire pump cooling water for the maintenance cycling is included in Table 2.6-1.

Table 2.6-1. Process Water Uses and Rates

Industrial Process	Average Water Use (gpd)	Maximum Water Use (gpd)
Area 200		
– Miscellaneous Part/ Equipment Wash	2,400	5,000
– Fire Pump	100	200
Area 300		
– Boiler Building	3,000	3,700
– Fire Pump	100	200
Area 400 – Fire Pump	100	200
Area 600 – Boiler Building	48,400	69,600
Total Process Water	54,100	78,900

The anticipated maximum day process water demand is approximately 54.8 gpm. Process water will be isolated from the potable water using approved reduced pressure cross-connection control devices. The annual water usage will vary based on the density and viscosity of the raw crude oil, the volume of crude requiring heat and the ambient air temperatures, with lower ambient temperatures requiring higher water usage.

2.6.5 Potable Water

Potable water for the Facility is limited to the amount needed to serve the Administrative and Support Buildings (Area 200), a single restroom inside the Boiler Building (Area 300), and landscape irrigation and will be used predominantly for general kitchen and restroom facilities. A water use consumption rate of 50 gallons per person per day was used for the average, with a 15 percent added for maximum flow. The water use rate of 50 gpd was determined following a review of the Ecology Criteria for Sewage Works Design (sewer design manual) and additional engineering judgment. The sewer design manual lists a maximum of 35 gpd for industrial factory sewer rates in Table G2-2 Design Basis for New Sewage Works. An additional 15 gpd were added because a larger proportion of employees will probably use washbasins and shower facilities.

A total worker population of 110 employees is assumed, with four using the restroom facility at Area 300. The remaining 106 employees are assumed to use the facilities located at the Administrative and Support Building portion of Area 200. Workers will be assigned to Area 400, the Marine Terminal area. Bottled water will be provided for those employees; only irrigation water is included as part of Area 400. Table 2.6-2 shows a breakdown of the potable water uses and rates.

Table 2.6-2. Potable Water Uses and Rates

Potable Water Uses	Average Water Use (gpd)	Maximum Water Use (gpd)
Area 200 – Administrative and Support Buildings	5,300	6,100
Area 300 – Storage Boiler Building Restroom	200	200
Landscaping Irrigation	1,500	2,200
Total Potable Water	7,000	8,500

The maximum daily potable water demand is equivalent to the need for 6 gpm. Potable water use will be isolated from non-potable process water using approved double check cross-connection control devices. The annual water usage will vary based on ambient air temperatures and rainfall, with lower ambient temperatures and higher rainfall requiring less irrigation water usage.

2.6.6 Mitigation Measures

Mitigation measures for the water supply consist of the monetary contribution required by the City for water connections and new services. Service connection fees, system development charges, and industrial water use billing will be paid to the City. Connection fees and system development charges paid at the time of building permit application and application for water service is compensatory mitigation paid to the City for the long-term impacts to water rights, source development, system storage, and distribution piping.

The connection to the City water supply system will be made consistent with standard specifications adopted by the City. Backflow devices will be tested yearly per State requirements.

Section 2.7 – System of Heat Dissipation

WAC 463-60-175

Proposal – System of heat dissipation.

The application shall describe both the proposed and alternative systems for heat dissipation from the proposed facilities.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-175, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-175, filed 10/8/81. Formerly WAC 463-42-430.)

Section 2.7 System of Heat Dissipation

The Facility is not an electrical generating facility, and therefore does not require or incorporate the large heat dissipation systems (i.e., cooling towers or ponds) that are associated with using water or air to cool combustion equipment.

As noted in section 2.3.6, the Facility will be equipped with boilers fueled with natural gas to provide steam used to heat the crude oil in order to facilitate its conveyance during the rail car unloading, storage, and vessel loading operations. The Facility will include two boiler systems: the Area 600 system will include three boilers, each with a rated capacity of 62 MMBTU/hr and the Area 300 system that will include two boilers, each with a rated capacity of 13.2 MMBTU/hr.

Both systems will be field-erected or package boilers with a fire- or water-tube design. The steam produced in the boilers is circulated in a closed system to the location where the heat carried by the steam is needed, where the steam is released in closed-system manifolds in the heated tank cars and the bottoms of two of the storage tanks. As the steam releases its heat content, the steam condenses, and the water is piped back to the boiler. Excess heat is dissipated with the exhaust gases that exit the boiler building through the vent to the environment; therefore, a heat dissipation system is not required. Small amounts of steam will also be released periodically from the boiler systems. The steam that will be lost to atmosphere from the storage area boiler system will be low pressure steam, and in such quantities that no visual sign of steam loss will be noticeable. The steam that will be lost to atmosphere at the rail unloading area boiler system will be discharged to atmosphere within the rail unloading area and will not result in a visual plume.

To maintain the quality of water used in the closed system, a small amount of water from the closed steam system will be purged from the system and replaced with fresh water treated to the appropriate quality (see section 2.3.6). In order to meet the temperature discharge limits, the blowdown will be cooled by the addition of wastewater generated at the Facility or potable water that is cooler than the discharge. Process water discharges from the boiler facilities consist of a combination of blowdown and cooling water and are discussed in detail in section 2.9.1. The total amount of process water discharged from both boiler buildings will not exceed 21,600 gallons per day (15 gpm).

Section 2.8 – Characteristics of Aquatic Discharge Systems

WAC 463-60-185

Proposal – Characteristics of aquatic discharge systems.

(1) Where discharges into a watercourse are involved, the applicant shall identify outfall configurations including: (a) Location(s) of water discharge pipeline or conveyance system, the outfall, and any associated dilution systems; (b) Average and maximum discharge rate; (c) Extent of the dilution zone if necessary; (d) Width of the receiving water body at the outfall location; (e) Dimension(s), and rated and maximum carrying capacity of the water discharge pipeline or conveyance system, the outfall structure and any associated dilution systems; (f) Depth and width of the receiving water body at the discharge point; (g) Average, minimum and maximum water velocity of the receiving water body at the discharge point, and the times when the maximum and minimum flows occur.

(2) Where discharges are into a water-course via an existing discharge system for which certification is not being sought, the applicant shall also provide the following information: (a) Ownership of the discharge conveyance system; (b) A description of, and the terms and duration contained in, the use agreement that allows the applicant to use the discharge conveyance system; (c) Identification of the party responsible for operation and maintenance of the discharge conveyance system; (d) NPDES or state wastewater discharge permit number for the existing system discharge; (e) Location of connection point into the existing discharge system; (f) Diameter and rated and maximum volume capacity of the wastewater line or conveyance system into which discharge is being proposed; (g) Existing, rated and maximum flow levels in the wastewater line or conveyance system into which the discharge is being proposed; (h) Where a discharge is proposed to a publicly owned treatment works, in addition to the items provided in subsections (1) and (2) of this section, the applicant shall provide an engineering analysis showing that the proposed discharge will not cause the waste treatment facility to exceed capacities or to violate its authorized discharge limits, including both the quality of the discharge and the volume of the discharge, or to violate the permits governing its operation.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-185, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-185, filed 10/8/81. Formerly WAC 463-42-440.)

Section 2.8 Characteristics of Aquatic Discharge Systems

Discharges from the Facility contribute indirectly to downstream aquatic outfalls. All on-site sources of aquatic discharges, including stormwater and wastewater sources, discharge to existing conveyance and treatment systems prior to the eventual release of water to the Columbia River. All of the downstream outfalls are permitted and regulated by Ecology.

2.8.1 Description of Discharge Systems

There are four separate conveyance systems in which discharges are released from the Facility to eventual aquatic discharges. The multiple discharges are directly related to the spread-out nature of the Facility and the boundaries of the existing drainage basins at the Port. The conveyance systems are listed below.

- Terminal 5 stormwater system
- Terminal 4 stormwater system
- Combined Marine Terminal and Subaru lot treatment swales
- Wastewater discharge to City sanitary sewer

A portion of the Facility lease boundary is located within areas determined by the Port to be within its general use area, which the Port defines as areas in which it is not feasible that individual tenants collect and treat their own stormwater discharges. Areas in this Facility that fall under that designation are limited to rail improvements located within the master plan rail corridor, transfer pipeline alignment, and non-pollution-generating rail yard area on the north side of the rail unloading building..

2.8.1.1 Terminal 5 Stormwater System

Stormwater discharging to Terminal 5 is generated from the following Facility locations.

- Area 200 unloading and office
- Portion of Area 500 transfer pipelines
- Area 600 West Boiler
- Rail infrastructure

Stormwater is discharged from the Facility to the Terminal 5 stormwater system in a single location just south of the rail unloading building. Stormwater from the Facility is treated to basic treatment standards prior to its discharge in accordance with the Terminal 5 Western Washington Phase II Municipal Stormwater Permit WAR045201. The Port owns the stormwater conveyance systems and downstream treatment ponds. Stormwater from the connection points flows through a series of minimum 24-inch-diameter manmade conveyance pipelines to a pump station and is pumped to two water quality treatment ponds located west of Terminal 5. Each connection location's minimum pipeline diameter and capacity at the point of connection is summarized below.

- T5 West Connection: 24" Corrugated Polyethylene Pipe, 19.2 cubic feet per second capacity
- T5 Mid Connection: 24" Corrugated Polyethylene Pipe, 6.4 cubic feet per second capacity
- T5 East Connection: 24" Corrugated Polyethylene Pipe, 7.6 cubic feet per second capacity

The project site discharges approximately 1.09 cubic feet per second (cfs) during a water quality event and approximately 11.39 cfs during a 100-year storm. An outfall is located immediately south of the treatment ponds at latitude 45° 38' 60" and longitude -122° 44' 45".

A master stormwater system plan was prepared for the entire Terminal 5 expansion area by HDR Engineering Inc. and dated May 3, 2012; it is attached to the stormwater report in Appendix F. The conveyance system was sized assuming the entire 91-acre drainage basin is fully impervious at buildout. The report concluded that the conveyance system functions as intended to accommodate the 25- and 100-year storm events.

Stormwater generated on Terminal 5 is currently collected and treated in accordance with the current stormwater regulations and permitted under permit WAR045201. Construction of the additional rail lines will not affect collection or treatment of the stormwater adversely as the facilities in place were previously designed for the entire 91-acre basin. The conveyance pipeline and non-pollution-generating yard area is considered non-pollution-generating. As part of this project, stormwater inlets receiving stormwater from the general use areas in which the Facility is making improvements will be confirmed to have, or will be retrofitted, with spill containment devices.

2.8.1.2 Terminal 4 Stormwater System

Stormwater discharging to Terminal 4 is generated from the following Facility locations.

- Areas 300 storage
- Portion of Area 500 transfer pipelines

Stormwater is discharged from the Facility to the Terminal 4 stormwater system in a single location just south of the Storage Area. In accordance with the Port's Terminal 4 Industrial Stormwater General Permit WAR000424, stormwater from the Facility is treated to enhanced treatment standards prior to its discharge. The Port owns the stormwater conveyance systems and outfall. Stormwater from this connection point flows through a series of 36-inch minimum manmade conveyance pipelines prior to the Columbia River outfall. The 36-inch pipeline has a hydraulic capacity of 27.1 cubic feet per second at the connection location. The project site discharges approximately 3.48 cfs during a water quality event and 20.60 cfs during a 100-year storm. The outfall is located upriver of the Storage Area at latitude 45° 38' 15" and longitude -122° 42' 45".

BergerABAM reviewed the drainage options for Parcel 1A (Storage Area) for the Port in June 2010; a copy of the review is included in the stormwater report (Appendix F). The conveyance system was sized assuming the Parcel 1A and adjacent tenant parcel totaling 44 acres would be fully impervious at buildout. The report concluded that the conveyance system, if designed and installed according to the recommendations of the memo, will function as designed to accommodate the 25- and 100-year storm events.

Stormwater from the general use area of Terminal 4 is currently collected and treated in accordance with the current stormwater regulations and permitted under permit WAR000424. Construction of the conveyance pipeline along the general use area will not impact collection or treatment of the stormwater adversely as the facilities in place were designed for stormwater runoff along the rail corridor. As part of this project, stormwater inlets receiving stormwater from the general use areas in which the Facility is making improvements will be confirmed to have, or will be retrofitted with, spill containment devices. The typical containment device is the

installation of a T or 90 degree elbow on the outlet pipe to prevent crude oil from entering the outlet. Final design and maintenance requirements will be completed in consultation with the Port.

2.8.1.3 Combined Marine Terminal & Subaru Treatment & Infiltration Swales

Stormwater discharging to the combined Marine Terminal and Subaru treatment and infiltration swales is generated from the following Facility locations.

- Area 400 Marine Terminal
- Portion of Area 500 transfer pipelines

Stormwater discharged from the Facility to the Combined Marine Terminal & Subaru Treatment & Infiltration Swales will sheet flow across a proposed filter strip abutting the south side of the southernmost swale. The existing treatment and infiltration swales were designed by David Evans and Associates as part of the Port of Vancouver Columbia Gateway – Phase 1 project. The swales current collect and treat the entire 25-acre basin through the pair of northernmost swales which eventually overflow after required treatment into the southernmost swales for infiltration. The project will not add any additional pollution generating surfaces or additional contributing land coverage to the treatment and infiltration swale system. The project site discharges approximately 0.15 cfs during a water quality event and 0.87 cfs during a 100-year storm. There is no outfall for this existing stormwater system.

2.8.1.4 Wastewater Discharge to City Sanitary Sewer

Wastewater discharging to the City sanitary sewer is generated from the following Facility locations and is described in further detail in section 2.9.

- Process water from West Boiler effluent
- Process water from Storage Boiler Building effluent
- Process water from Storage Pump Basin sump pump
- Process water from Storage Fire Pump cooling water
- Domestic sewage from Administrative and Support Buildings
- Domestic sewage from Storage Boiler Building restroom

Wastewater is discharged to the City's sanitary sewer at two locations, one just north of the Administrative and Support Buildings into an existing 18-inch diameter gravity sewer, and a second just south of the Storage Area into an existing 18-inch diameter gravity sewer.

Capacity at the connection location for the 18-inch discharge gravity sewers at the Administrative and Support Buildings and Storage Area are 4.84 cubic feet per second and 6.65 cubic feet per second.

Wastewater is conveyed through the City's conveyance system to the WWTP located approximately 1 mile east of the Storage Area at 2323 West Mill Plain Boulevard. The City owns the conveyance pipeline system, treatment plant, and associated outfall. The treatment plant and outfall are regulated under the Municipal NPDES Individual Permit WA0024350.

The WWTP discharges to the Columbia River, which is designated a Class A receiving water in the vicinity of RM 105. The Columbia River has a special temperature standard of 20 degrees C (68 degrees F). Nearby outfalls include Northwest Packing Company (RM 105.1), Great Western Malting (RM 106), Vancouver Marine Park Treatment Plant (RM 110), Vancouver Trout

Hatchery (RM 113.5), City of Gresham STP (RM 117.5), and Camas STP (RM 121.2). Ecology approved the most recent mixing zone report in January 1996. A detailed discussion and engineering analysis relating to water body depth, width, maximum and minimum velocities, and a complete mixing zone engineering analysis for surface water quality-based discharge limitations and conformance are included in the previously approved mixing zone study.

A letter confirming conveyance system and treatment capacity from the City has been received (see Appendix E). The Applicant submitted the City's Industrial Information Form, along with a completed Wastewater Discharge to POTW permit application as the basis of review (see Appendix I.1). The maximum day wastewater generated from the Facility is approximately 26 gpm. The Applicant has demonstrated that the proposed discharge will not cause the waste treatment facility to exceed capacities or to violate its authorized discharge limits, including both the quality of the discharge and the volume of the discharge, or to violate the permits governing its operation.

Section 2.9 – Wastewater Treatment

WAC 463-60-195

Proposal – Wastewater treatment.

(1) The application shall describe each wastewater source associated with the facility and for each source, the applicability of all known, available, and reasonable methods of wastewater control and treatment to ensure it meets current waste discharge and water quality regulations.

(2) Where wastewater control involves collection and retention for recycling and/or resource recovery, the applicant shall show in detail the methods selected, including at least the following information: (a) Waste source(s); (b) Average and maximum daily amounts and composition of wastes; (c) The type of storage vessel and the storage capacity and duration; and (d) Any bypass or overflow facilities to the wastewater treatment system(s) or the receiving waters.

(3) Where wastewaters are discharged into receiving waters, the applicant shall provide a detailed description of the proposed treatment system(s), including: (a) Appropriate flow diagrams and tables showing the sources of all tributary waste streams; (b) Their average and maximum daily amounts and composition; (c) Individual treatment units and their design criteria; (d) Major piping (including all bypasses); and (e) Average and maximum daily amounts and composition of effluent(s).

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-195, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1). 92-09-013, § 463-42-195, filed 4/2/92, effective 5/3/92. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-195, filed 10/8/81. Formerly WAC 463-42-470.)

Section 2.9 Wastewater Treatment

Sources of wastewater from the Facility boiler plant effluent (including blowdown, cooling water, and treatment backwash from the two boiler plants), miscellaneous part and equipment wash, fire pump cooling water, and domestic sewage from the Administrative and Support Buildings and the restroom inside the Storage Area boiler building. Most wastewater sources will be connected to the City public sanitary sewer system. Sanitary sewage collected from within the Port area is conveyed to the City's WWTP where it is treated and discharged to the Columbia River under City's NPDES Permit No. WA0024350. All process wastewater discharged from the Facility to the City's sanitary sewer system will undergo pretreatment to ensure compliance with the City's pretreatment program. A copy of the Application for a State Waste Discharge Permit to Discharge Industrial Wastewater to a POTW is included in section 5.2.

2.9.1 Process Wastewater Sources

Sources of process wastewater include the following:

- Feed water treatment effluent from the West Boiler Building and Storage Area boiler
- Blowdown from the West Boiler Building and Storage Area boiler plants
- Blowdown cooling water
- Storage Area pump basin sump discharge
- Miscellaneous part and equipment wash water in the rail unloading area
- Fire pump cooling water from the Rail Unloading and Office Area, Storage Area, and Marine Terminal

The boiler plants are expected to produce continuous blowdown, with discharge flow rates fluctuating depending on steam demand. Blowdown temperature at both boiler plants will be lowered to 140 degrees F with a cooling system that utilizes potable water as the coolant. Coolant water will be mixed along with the boiler blowdown. At the West Boiler Building (Area 600), an additional heat exchanger will be added to reduce cooling water demands. Average and maximum process wastewater steady state flow rates are summarized in Table 2.9-1.

Storage Area pump basin includes a sump pump used to dewater the concrete basin. The basin includes pumps, piping, valving, and appurtenances necessary to transfer crude oil from the product storage tanks to the Marine Terminal and vessel loading area. Waste flows from this basin are calculated assuming (at this time) that the basin is not covered. Average day flows were calculated distributing the annual rainfall total of 38.9 inches per year to determine gpd. Maximum rainfall was calculated using the 100-year storm rainfall event of 4.5 inches per day.

Miscellaneous part and equipment washing will be completed in a designated area located within the Rail Unloading and Office Area. Wash water will be generated from a single 5-gpm pressure washer and will be collected and conveyed to the Unloading Facility Containment Tanks.

The fire pumps must be put through a 30-minute maintenance cycle once a week. Cooling water from the fire pumps will be discharged for the Rail Unloading, Storage, and Marine Terminal Areas to the containment tanks, sanitary sewer, and stormwater system respectively.

Venting from the crude oil drain line will be piped in a continuous loop back through the top of the rail car, capturing all venting condensate within the rail car and/or crude pipelines. Therefore, no discharge of heavily hydrocarbon saturated condensate is necessary.

Table 2.9-1. Process Wastewater Sources

Wastewater Stream	Average Daily Flows (gpd)	Maximum Daily Flows (gpd)
Area 200		
– Miscellaneous Part/Equipment Wash	2,400*	5,000*
– Fire Pump Cooling Water	100*	200*
Area 300		
– Boiler Building Effluent	1,600	1,700
– Pump Basin Sump Effluent & Condensate Discharge	600	7,600
– Fire Pump Cooling Water	100	200
Area 400 – Fire Pump Cooling Water	100*	200*
Area 600 – Boiler Building Effluent	16,200	19,900
Sanitary Wastewater Total Process Wastewater	21,100	34,800
Total Process Wastewater to Sanitary Sewer	18,500	29,400

* Process water discharged to stormwater system for treatment, or stored on-site and hauled off.

The approximate constituent concentrations in the process wastewater are shown in Table 2.9-2. Boiler blowdown and softener backwash concentrations are based on raw water quality from the City’s potable water system and an approximation of the constituent chemical composition of the wastewater based on a preliminary analysis of required pretreatment water polishing and effluent discharge pretreatment. Wastewater discharge concentration standards are based on VMC Chapter 14.10, Pretreatment Ordinance.

Table 2.9-2. Estimated Chemical Makeup of Process Water Discharge

Constituent	Quantity Boiler Blowdown	Softener Backwash	Unit
pH	10.2	8	
Conductivity	1,200	1,000	mmhos
Alkalinity	336	120	mg/L
Hardness	14	500	Mg/L as CaCO ₃
Polyacrylate	250	0	mg/L
Aluminum	<0.1	<0.1	mg/L
Barium	<0.4	<0.4	mg/L
Boron	<0.1	<0.1	mg/L
Bromide	<0.2	<0.2	mg/L
Cadmium	<0.04	<0.04	mg/L
Calcium	0.5	125	mg/L
Chloride	9.3	6,000	mg/L
Chromium	<0.01	<0.01	mg/L
Copper	4	0.2	mg/L
Iron	2	0.1	mg/L
Lead	<0.2	<0.2	mg/L
Lithium	<0.01	<0.01	mg/L
Magnesium	3	50	mg/L

Constituent	Quantity Boiler Blowdown	Softener Backwash	Unit
Manganese	<0.01	<0.01	mg/L
Molybdenum	<0.1	<0.1	mg/L
Nickel	<1	<1	mg/L
Nitrate	0.8	0.32	mg/L
Nitrite	<0.2	<0.2	mg/L
Phosphorus	1	1	mg/L
Potassium	59	59	mg/L
Silica	150	54	mg/L
Sodium	5,880	6,000	mg/L
Strontium	0.1	0.1	mg/L
Sulfate	15	0.72	mg/L

Additional non-process wastewater may be generated intermittently from the unloading area. Non-process wastewater originating from within the unloading area may include rainwater that enters the building from rail cars and is blown in at the entry and exits, oil and other contaminants dripping off rail cars, and fire retardant foam released by the fire suppression system during routine maintenance. Containment drip pans and secondary containment trenches will be installed between and adjacent to the tracks of the rail car unloading building to capture any spilled oil, rainwater, and fire retardant and direct it to sump pumps installed at low points within each containment trench. The sump pumping system will transfer any collected non-process wastewater to a series of aboveground holding tanks where it will be removed by a vacuum truck or pumped out of the tanks and hauled off site to a licensed and approved disposal facility.

2.9.2 Domestic Strength Wastewater Sources

Sources of domestic strength wastewater include the following:

- Domestic strength sanitary discharge from the administrative and support buildings
- Domestic strength sanitary discharge from the Storage Area Boiler Building restroom
- Domestic strength sanitary discharge from the Marine Terminal

Domestic strength sanitary wastewater from the Administrative and Support Buildings and Boiler Building restroom will consist primarily of domestic waste from kitchen/break room, restroom facilities, and shower areas. No pretreatment is proposed at these locations. Discharges from both the Administrative and Support Buildings and Boiler Building restroom will be discharged directly to the sanitary sewer. Marine Terminal (Area 400) employees will use portable toilets located at the Marine Terminal. The waste from the Marine Terminal will be hauled off site (see Table 2.9-3).

Table 2.9-3. Domestic Wastewater Sources

Wastewater Stream	Average Daily Flows (gallons per day)	Maximum Daily Flows (gallons per day)
Area 200 – Administrative and Support Buildings	5,300	6,100
Area 300 – Boiler Building (restroom)	200	200
Area 400 – Portable toilets	100*	100*
Total Domestic Wastewater	5,600	6,400
Domestic Wastewater to Sanitary Sewer	5,500	6,300

* Domestic wastewater stored on-site and hauled off.

2.9.3 Process Wastewater Treatment Alternatives

Final treatment of all wastewater discharged from the Facility to the public sanitary sewer will be done at the City’s existing WWTP. No treatment process modifications at the WWTP will be necessary to accommodate this project. Pretreatment will be conducted on site per the requirements of the City’s industrial wastewater pretreatment permit. Process wastewater streams requiring pretreatment include blowdown and condensate discharges from the boiler plants. Pretreatment processes for these waste streams will be designed and furnished by the boiler manufacturer in accordance with industry practices.

2.9.4 Selection of Wastewater Treatment Alternatives

The total discharge amount of the Facility’s wastewater flows is not significant when compared to the overall treatment plant flows or capacity. The boiler units and effluent pretreatment systems are standard and therefore a formal alternatives analysis was not necessary for this project. The location of the project within the City’s service area and sanitary sewer service basin of the City WWTP eliminates further alternatives analysis. Discharges will be within the City discharge requirements.

2.9.5 Waste Discharge/Water Quality Standards

Maximum wastewater discharges to the City’s sanitary sewer system by the Facility will account for less than 0.1 percent of the total treatment capacity of the City’s WWTP. The WWTP uses an activated sludge process, UV disinfection, and sludge incineration for treatment, and is rated for a maximum wet weather treatment capacity of 28.26 MGD. Current treatment plant maximum demands listed in the most recent Ecology facility fact sheet dated 2003 is 17.4 MGD. The WWTP is permitted through Ecology and its municipal NPDES Individual Permit WA0024350.

New wastewater sources will be connected to the existing public sanitary sewer via a combination of new gravity and pressure sewer lines. A small sanitary sewer pump station is necessary to convey wastewater from the Area 600 West Boiler Building to the discharge location near the Administrative and Support Buildings. The public sanitary basin to which the Facility discharges contains a single pump station at the southeast corner of the Storage Area.

The City reviewed a pre-application narrative which listed wastewater discharges of 30 gpm and indicated that the City has sufficient wastewater treatment and conveyance capacity to serve the project (Aaron Odegard, City of Vancouver, Personal Communications, July 2013). An Industrial Information Form and copy of the Wastewater Discharge to POTW permit application have been submitted to the City. A letter stating that the City has sufficient capacity has been received and is attached in Appendix E.

Discharges to the City’s sanitary sewer system will comply with VMC Title 14.010 Pretreatment Ordinance. The following discharge limits are specified in VMC 14.010.

Table 2.9-4. Required Wastewater Discharge Constituent Limits

Constituent	Daily Maximum Concentration Limit	Instantaneous Concentration Limit	Unit
pH (minimum)	5.5	N/A	-
pH (maximum)	10.0	N/A	-
Arsenic	0.22	0.44	mg/L
Biological oxygen demand	500	-	ppd
Cadmium	0.14	0.28	mg/L
Chromium	7.22	14.44	mg/L
Chromium (hexavalent)	4.28	8.56	mg/L
Copper	3.67	7.34	mg/L
Cyanide	0.47	0.94	mg/L
Hydrocarbon based Oil & Grease	50.0	-	mg/L
Lead	0.44	0.88	mg/L
Mercury	0.008	0.016	mg/L
Molybdenum	0.42	0.84	mg/L
Nickel	0.90	1.80	mg/L
Selenium	0.31	0.62	mg/L
Silver	1.13	2.26	mg/L
Temperature*	104		mg/L
Thallium	0.53	1.06	mg/L
Zinc	1.64	3.28	mg/L

* Temperature of the total influent measured at the treatment plant.

Discharges additionally will comply with VMC 14.010.050 Prohibited Discharge Standards, VMC 14.010.060 National Categorical Pretreatment Standards, and VMC 14.010.070 State Pretreatment Standards.

Section 2.10 – Spill Prevention and Control

WAC 463-60-205

Proposal – Spillage prevention and control.

The application shall describe all spillage prevention and control measures to be employed regarding accidental and/or unauthorized discharges or emissions, relating such information to specific facilities, including but not limited to locations, amounts, storage duration, mode of handling, and transport. The application shall describe in general detail the content of a Construction Phase and an Operational Phase Spill Prevention, Control and Countermeasure Plan (Chapter 40 CFR Part 112 and Hazardous Waste Management Plan) that will be required prior to commencement of construction.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-205, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-205, filed 10/8/81. Formerly WAC 463-42-420.)

Section 2.10 Spill Prevention and Control

This section describes the spill prevention and control measures to be employed at the Facility regarding accidental and/or unauthorized discharges or emissions, especially as they relate to specific proposed Facility components, storage (locations, amounts duration), and modes of product handling from the time the crude oil enters the Facility to the time it is loaded to marine vessels.

The nature of the proposed Facility (offloading from rail, storage, and loading to marine vessels) and the nature of the product handled (crude oil) engender a comprehensive and rigorous regulatory environment for Facility design, construction, operation, and spill response contingency planning. Local state and federal programs all regulate spill prevention of the proposed Facility and offer significant redundancy in safety protocols for the proposed Facility. The cooperation of local, state, and federal agencies, and industry spill response cooperatives has made Washington State a national leader in spill contingency planning and response.

The Applicant will comply with the comprehensive regulatory context regarding Facility design, construction, operation, and contingency planning requirements and its actions will be fully coordinated to meet all applicable local, state, and federal requirements. The Applicant will also implement inspection and training processes to ensure long-term compliance with these requirements. Inspections and training relating to spill prevention and controls will be integrated into the overall day-to-day management of the Facility.

Stormwater protection will also require spill pollution controls – these are addressed separately in Sections 2.11 and 5.3 of this Application.

2.10.1 Regulatory Overview and Applicability

2.10.1.1 Federal Requirements

The federal regulatory structure for spill prevention, control, and contingency planning related to the storage and loading of crude oil to marine vessels has developed over time through the interaction of multiple federal law-making processes. Lawmaking has primarily involved the following three components to address these requirements: the establishment of the National Contingency Plan (NCP), the Clean Water Act (CWA), as amended, and the Oil Pollution Act of 1990 (OPA 90). Appendix B.1 provides a summary of how these three statutes have interacted since their inception to include requirements applicable to oil storage facilities and to oil transfer operations over marine waters, as well as the broader regional contingency planning effort.

Spill Prevention and Control

Section 311(j) of the CWA establishes the spill prevention and control requirements for three categories of facilities: related to transportation, not related to transportation, and complexes. What constitutes transportation-related versus non-transportation-related facilities has been established through a series of executive orders (EOs) and memoranda of understanding (MOUs) (EPA, 2005). Onshore and certain offshore non-transportation-related facilities (and portions of a complex) are subject to the SPCC regulation, provided they meet the other applicability criteria set forth in Section 112.1 of the law. A facility with both transportation-related and non-transportation-related activities is a “complex” and is subject to the dual jurisdiction of EPA, and

USDOT further delegated authority over vessels and transportation-related onshore and offshore facilities to the USCG Commandant.

Per 33 CFR 154.1020, the Facility that is the subject of this application is considered a complex subject to both USCG and EPA jurisdiction. The USCG regulates the pier structures, transfer hoses and piping, hose-piping connection, containment, and controls associated with the transfer of oil between a vessel and an onshore facility. EPA regulates the tanks, internal piping, loading racks, and vehicle/rail operations that are completely within the non-transportation portion of the Facility. EPA jurisdiction begins at the first valve inside secondary containment.

Transportation-related activities, i.e., transportation of the crude oil by rail to the Facility, and transportation of the crude oil away from the Facility by vessel, are also regulated. USDOT regulates railroad cars from the time the oil is offered for transportation to a carrier until the time that it reaches its destination and is accepted by the consignee. USDOT, through delegation to the USCG, also regulates spill prevention and control related to vessels once they have been loaded and have left the berthing dock. These activities are not part of the Facility and are, therefore, not further addressed in this application.

The following are the federal regulations that address spill prevention and control provisions applicable to the Facility:

40 CFR 110 – Discharge of Oil (“Sheen Rule”), addresses the reporting of spills to the National Response Center.

40 CFR 112 – Oil Pollution Prevention, Subpart A and Subsection 112.8 of Subpart B, address the requirements for an SPCC plan for a non-transportation facility. These subparts apply to the facilities and operations related to offloading crude oil from the rail cars (Area 200); conveying oil to and storing it in the storage tanks (Area 300); and conveying it to the marine vessel loading area (Area 400).

33 CFR 154, Facilities Transferring Oil or Other Hazardous Materials in Bulk, applies to facilities capable of transferring oil to or from a vessel with a capacity of 250 barrels or more. Subparts A through D apply to the design and operation of the vessel loading equipment associated with Area 400.

33 CFR 156, Oil and Hazardous Material Transfer Operations, applies to the transfer of oil or hazardous material on the navigable waters or contiguous zone of the United States to, from, or within each vessel with a capacity of 250 barrels or more.

Spill Contingency Planning

The requirements for spill contingency planning at marine transportation-related (MTR) complexes are divided along similar lines as those described for spill prevention and control above.

40 CFR 112, Subpart D – Response Requirements, addresses contingency planning for non-transportation related facility response plans and associated training and drills; this subpart applies to the equipment and operations related to the unloading of crude oil from the rail cars (Area 200), and its conveyance to, and storage in, the storage tanks (Area 300).

33 CFR 154, Subpart F – Response Plans for Oil Facilities, addresses oil spill response contingency planning for fixed MTR facilities that could reasonably be expected to cause substantial harm or significant and substantial harm to the environment by discharging oil into or

on the navigable waters, adjoining shorelines, or exclusive economic zone (EEZ). In accordance with 33 CFR 154.1015, because the Facility is onshore and has the capacity to transfer oil to a vessel with a capacity of 250 barrels or more, it is considered to be an MTR that, because of its location, could cause substantial harm.

USCG Safety Regulations

33 CFR 154, Subpart E addresses the design, installation, and operation of vapor control systems associated with marine vessel loading operations. These requirements are aimed at ensuring the *safety* of the operations and are, therefore, addressed in section 4.1.4 of this ASC.

2.10.1.2 State Requirements

Both RCW 88.46 Vessel Oil Spill Prevention and Response, and RCW 90.56 Oil and Hazardous Substance Spill Prevention and Response, provide the statutory authority for regulating spill prevention and control, and contingency planning in Washington. These authorities are implemented through the WAC as follows:

WAC 173-180 establishes minimum standards for safe oil transfer operations to meet a zero spill goal established by the legislature. WAC 173-180 applies to all classes of oil handling facilities, including transfer operations involving any size nonrecreational vessel. The Facility, meets the definition of a “Class 1 facility” in RCW 90.56.010 and WAC 173-180-025.8 as “Any structure, group of structures, equipment, pipeline, or device, other than a vessel, located on or near the navigable waters of the state that transfers oil in bulk to or from a tank vessel or pipeline, that is used for producing, storing, handling, transferring, processing, or transporting oil in bulk.”

WAC 173-182 establishes the requirements for spill contingency planning. The Applicant will be required to prepare and implement a contingency plan because the project meets the definition of a “Class 1 facility.” The Facility proposes to only handle Group 2, 3, and 4 persistent oils as defined in WAC 173-182-030 (24) with a specific gravity less than 1 (meaning they will float on water), and an API gravity ranging from 10 to 45. The Facility will not receive, store, or load Group 5 persistent oils, those with a Specific gravity greater than 1.0000 and an API gravity equal to or less than 10.0, which are heavier than water.

Finally, WAC 173-183, authorized by RCW 90.48.366, 90.48.367, and 90.48.368, establishes procedures for convening a resource damage assessment (RDA) committee, preassessment screening of resource damages resulting from oil spills to determine which damage assessment methods to use, and determining damages in cases where the compensation schedule is selected as the damage assessment methodology to apply. This WAC does not directly apply to spill prevention, control, and contingency planning; however, its activities are conducted in coordination with the “potentially liable party,” i.e., the person or persons who may be liable for damages resulting from an oil spill.

Table 2.10-1 summarizes the regulations promulgated under these statutes that apply to this Facility.

Table 2.10-1. Summary of Washington State Spill Prevention and Control and Contingency Planning Regulations Applicable to the Facility

WAC, Regulatory Authority, and Federal Regulations Incorporated by Reference	Applicable WAC Requirements	Identification of Primary Compliance Methods
<p>WAC 173-180 Facility Oil Handling Standards</p> <p>Regulatory Authority: (1) RCW 88.46.160 and 88.46.165 provide statutory authority for regulating the transfer of oil on or over waters of the state. (2) RCW 90.56.220 provides statutory authority for developing operations and design standards and implementing a compliance program (3) RCW 90.56.230 provides statutory authority for operations manual preparation and review requirements (4) RCW 90.56.220 provides statutory authority for the personnel training and certification requirements (5) RCW 90.56.200, 90.56.300, and 90.56.310 provide statutory authority for the prevention plan preparation and review requirements</p> <p>Federal Regulations Adopted by Reference: 33 CFR 154.300, 33 CFR 154.310, 33 CFR 154.570, 33 CFR 154.710, 33 CFR 154.1050, 33 CFR 154.1055, 33 CFR 155, 33 CFR 156.120, 33 CFR 156.150, 33 CFR 156.170, 40 CFR 109, 40 CFR 112 Subpart F, 49 CFR 195</p>	<p>Part A – General Requirements WAC 173-180-010 Applicability WAC 173-180-015 Purpose WAC 173-180-020 Authority WAC 173-180-025 Definitions WAC 173-180-030 Compliance with federal rule or law WAC 173-180-035 Inspections WAC 173-180-040 Recordkeeping WAC 173-180-050 Oil Spills WAC 173-180-055 Work Hours WAC 173-180-060 Personnel Qualifications</p>	<ul style="list-style-type: none"> The Facility, meets the definition of a Class 1 facility in RCW 90.56.010 and WAC 173-180-025.8 as “[a]ny structure, group of structures, equipment, pipeline, or device, other than a vessel, located on or near the navigable waters of the state that transfers oil in bulk to or from a tank vessel or pipeline, that is used for producing, storing, handling, transferring, processing, or transporting oil in bulk.” The Applicant will comply with inspection, recordkeeping, oil spill notification, work hour, and personnel qualification requirements.
	<p>Part B – Oil Transfer Requirements WAC 173-180-200 Applicability WAC 173-180-205- Oil Transfer Equipment WAC 173-180-215 Advance Notice of Transfer WAC 173-180-220 Transfer containment and recovery requirements WAC 173-180-221 Rate A Prebooming Requirements WAC 173-180-223 Compliance Schedule for Prebooming and Alternatives for Rate A transfers WAC 173-180-224 Safe and Effective Threshold Determination Reports WAC 173-180-230 Preloading or Cargo Transfer Plan WAC 180-235 Pretransfer Conference WAC 173-180-240 Communications WAC 173-180-245 Oil Transfer Procedures WAC 173-180-250 Emergency shutdown</p>	<ul style="list-style-type: none"> The Facility oil transfer equipment will be designed and operated to meet the requirements of equipment protection, operation, and testing. The Applicant will submit an advance notice of transfer (ANT) 24 hours prior to oil transfer operations and will participate in pre-transfer conferences. The Facility meets the threshold of a “Rate A” transfer operation, with transfer rates exceeding 500 gallons per minute. The Applicant will implement the Rate A pre-booming requirements prior to the beginning of an oil transfer. The Applicant will prepare a safe and effective threshold determination report for the Facility marine vessel loading area (Area 400) and submit it for review and approval 120 calendar days prior to the first oil transfer operation. The Applicant will provide safe vessel access. The Applicant will prepare a transfer plan prior to any oil transfer, and participate in a face-to-face pre-transfer conference with the vessel’s person in charge (PIC) Oil transfers will occur in accordance with the Facility’s approved operations manual. The oil transfer facilities will be equipped with an emergency shutdown that can shut down transfer operations within 30 seconds.
	<p>Part C – Design Standards for Class I Facilities WAC 173-180-300 Applicability WAC 173-180-320 Secondary Containment Requirements WAC 173-180-330 Storage Tank Requirements WAC 173-180-340 Transfer Pipeline Requirements</p>	<ul style="list-style-type: none"> The secondary containment berm surrounding the storage area will be designed and constructed in accordance with the requirements of WAC 173-180-320. The storage tanks will be designed and constructed in accordance with the requirements of WAC 173-180-330, including compliance with NFPA No. 30I, and inspection results will be kept for the service life of the Facility. Transfer pipelines will be designed, constructed, protected, maintained, and inspected in accordance with WAC 173-180-340.

WAC, Regulatory Authority, and Federal Regulations Incorporated by Reference	Applicable WAC Requirements	Identification of Primary Compliance Methods
	<p>Part D – Operations Manual Requirements for Class 1 and Class 2 Facilities WAC 173-180-400 Applicability WAC 173-180-405 Class 1 facility- Operations Manual Class 1 facility- Operations Manual Preparation WAC 173-180-430 Class 1 Facility- Operations Manual Review and Approval WAC 173-180-435 Class 1 Facility- Operations Manual Updates WAC 173-180-435 Class 1 Facility- Submitting Operations Manual for re-approval</p>	<ul style="list-style-type: none"> The Applicant will prepare, submit for approval, and update/submit for re-approval every 5 years a facility operations manual in compliance with WAC 173-180 400 to -435. The Facility operations manual will be submitted for approval 120 calendar days prior to oil transfer operations.
	<p>Part E – Training and Certification WAC 173-180-500 Applicability WAC 173-180-510 Class 1 Facility Training Requirements WAC 173-180-515- Class 1 Facility Certification Program WAC 173-180-515- Class 1 Facility- Training and Certification Program Approval</p>	<ul style="list-style-type: none"> The Applicant will develop and implement oil transfer training for key supervisory, operations, maintenance, management, and indirect operations personnel identified in WAC 173-180-510, and maintain training records for the designated period. The Applicant will develop and implement a certification program to certify that key supervisory and operations personnel identified pursuant to WAC 173-180-510 have met the Facility's oil transfer training program requirements; the certification program will be submitted for approval 120 calendar days prior to oil transfer operations.
	<p>Part F – Prevention Plans for Class 1 Facilities WAC 173-180-600 Applicability WAC 173-180-610 Plan Preparation WAC 173-180-620 Plan Format Requirements WAC 173-180-630 Plan Content Requirements WAC 173-180-640 Plan Submittal WAC 173-180-650 Plan Review and Approval WAC 173-180-660 Plan Maintenance and Use WAC 173-180-670 Plan Update Timeline</p>	<p>The Applicant will prepare a plan for prevention of oil spills from the Facility into the waters of the state, and for the protection of fisheries and wildlife, other natural resources, and public or private property from oil spills. The Applicant's SPCC plans, operation manuals, and other prevention documents which meet federal requirements under 33 CFR 154, 33 CFR 156, 40 CFR 109, 40 CFR 112, or the federal Oil Pollution Act of 1990 may be submitted to satisfy state contingency plan requirements.</p>
	<p>Part G – Oil Transfer WAC 173-180-700 Applicability WAC 173-180-710 Class 1 Facility Contingency Plans</p>	<p>The Applicant will develop and implement a contingency plan in accordance with WAC 173-182.</p>
<p>WAC 173-182 Oil Spill Contingency Plan Regulatory Authority: RCW 88.46.060, 88.46.070,</p>	<p>Part 1 – Purpose, Authority, Applicability and Definitions WAC 173-182-010 Purpose WAC 173-182-015 Applicability WAC 173-182-020 Authority WAC 173-182-030 Definitions</p>	<p>The Applicant will develop and implement a contingency plan in accordance with WAC 173-182.</p>

WAC, Regulatory Authority, and Federal Regulations Incorporated by Reference	Applicable WAC Requirements	Identification of Primary Compliance Methods
<p>88.46.080, 88.46.090, 88.46.100, 88.46.120, 88.46.160, 90.48.080, 90.56.050, 90.56.060, 90.56.210, 90.56.240, 90.56.270, 90.56.280, 90.56.310, 90.56.320, 90.56.340, and chapter 316, Laws of 2006, provide statutory authority for the contingency plan preparation and review requirements, drill and response contractor standards established by this chapter for onshore and offshore facilities and covered vessels.</p>	<p>PART II – Covered Vessel and Facility Oil Spill Contingency Plans Section A--General Planning, Information and Timing WAC 173-182-110 Authority to Submit Contingency Plan WAC 173-182-120 Submitting a contingency plan WAC 173-182-140 Plan Maintenance WAC 173-182-142 Significant changes to approved plans require notification WAC 173-182-145 Plan Implementation Procedures WAC 173-182-150 Post Spill Review and Documentation</p>	<p>The Applicant will submit the contingency plan for review and approval 65 days prior to the planned date for beginning operations. The plan will be resubmitted every 5 years for review and approval.</p>
<p>Federal Regulations Adopted by Reference:</p> <p>33 CRF 165 Appendix B; and 33 CFR. 154 Appendix C.</p>	<p>PART II – Covered Vessel and Facility Oil Spill Contingency Section B--Contingency Plan Format and Content WAC 173-182-210 Contingency Plan Format Requirements WAC 173-182-220 Binding Agreement WAC 173-182-230 Contingency Plan General Content WAC 173-182-240 Field Document WAC 173-182-250 Initial Response Actions WAC 173-182-260 Notification and call-out procedures WAC 173-182-264 Notification requirements for facility spills to ground or containment that threaten waters of the state WAC 173-182-270 Maintain records for response equipment WAC 173-182-280 Spill management teams</p>	<p>The Applicant's contingency plan will be formatted and will contain the content in accordance with the requirements of Section B of WAC 173-182. The plan will be consistent with the Northwest Area Contingency Plan (NWACP). The plan will address initial response actions as well as procedures for advance notice to state emergency management agencies in the event of a discharge or substantial threat of a discharge. The plan will address notification and response actions in response to spills to ground or containment that could threaten the waters of the state. The plan will address the maintenance of response equipment and the availability an organization of spill management teams.</p>
	<p>PART II – Covered Vessel and Facility Oil Spill Contingency Section C--Planning Standards WAC 173-182-315 Facility planning standards for non-dedicated work boats and operators WAC 173-182-320 Facility planning standards for aerial surveillance WAC 173-182-325 Planning standards for dispersants WAC 173-182-330 Planning standards for in-situ burning WAC 173-182-335 Planning standards for storage WAC 173-182-345 Determining effectiveness of recovery systems WAC 173-182-348 Determining effective daily recovery capacity WAC 173-182-350 Documenting compliance with planning standards WAC 173-182-355 Transfer sites for covered vessels and vessel terminals WAC 173-182-420 Vancouver Planning Standard</p>	<p>The Applicant's contingency plan will address and document planning standards for spill response, including aerial tracking resources, the use of dispersants, in-situ burning, interim storage locations, and the effectiveness and capacity of recovery systems. The Applicant's contingency plan will address specifically how the plan meets the Vancouver planning standard of WAC 173-182-420.</p>

WAC, Regulatory Authority, and Federal Regulations Incorporated by Reference	Applicable WAC Requirements	Identification of Primary Compliance Methods
	<p>PART II – Covered Vessel and Facility Oil Spill Contingency Section D--Response and Protection Strategies for Sensitive Areas WAC 173-182-510 Requirements for response and protection strategies WAC 173-182-520 Facility Planning Standards for Shoreline Cleanup WAC 173-182-530 Planning standards for groundwater spills WAC 173-182-540 Planning standards for wildlife rescue and rehabilitation</p>	<p>The Applicant's contingency plan will address how sensitive and public resources will be protected in the event of a spill, and will identify the availability of resources for shoreline cleanup. The plan will address methods to assess and respond to spills affecting groundwater. The plan will identify applicable federal, state, and NWACP requirements for wildlife rescue and rehabilitation.</p>
	<p>PART II – Covered Vessel and Facility Oil Spill Contingency Section E--Plan Evaluation WAC 173-182-610 through 640</p>	<p>The Applicant will coordinate with the regulatory agency as needed during the agency's evaluation of the contingency plan.</p>
	<p>PART III – Drill and Equipment Verification Program WAC 173-182-700 Drill participation, scheduling and evaluation WAC 173-182-710 Type and Frequency of Drills WAC 173-182-710 Drill participation, scheduling and evaluation WAC 173-182- 730 Other ways to get drill credit WAC 173-182-740 Drill requirement waivers</p>	<p>The Applicant will conduct drills in the manner and upon the schedule identified in Part III of WAC 173-182.</p>
<p>WAC 173-183 Oil Spill Natural Resource Damage Assessment</p> <p>Regulatory Authority: RCW 90.48</p>	<p>WAC 173-183-010 through 920</p>	<p>In the event of a spill, the Applicant will participate in an agency-directed process to assess damages.</p>

2.10.1.3 Local Requirements

Section 14.26 of the VMC protects water resources in the City by establishing development regulations and minimum standards to reduce the risks of contaminants entering water resources. All operations within the City are subject to this ordinance and must meet the minimum design standards of VMC 14.26.120. Table 2.10-2 summarizes the requirements of VMC 14.26, and how the Facility will meet these requirements in the context of the overall spill prevention and control and contingency planning effort required by federal and state requirements.

VMC 14.26.115. B.2. defines special protection areas inside the critical aquifer recharge areas (CARAs) (inside the City boundary) to include property within 1,900 feet of any municipal water supply well. VMC 14.26.135 establishes restrictions in special areas, including the prohibition of new bulk petroleum fuel operations. VMC 14.26.110 defines “Petroleum Fuels” as petroleum-based liquid products that are refined from crude oil specifically for fuel purposes, including but not limited to, all grades of automotive gasoline, aviation gasoline, diesel, heating oils, and kerosene. As part of this application, the Facility does not propose to store “petroleum fuels.” In addition, the Facility is not located within 1,900 feet of any municipal water supply well.

**Table 2.10-2. Summary of VMC 14.26.120 Minimum Requirements
Applicable to the Facility**

VMC 14.26.120 Requirement	Method of Compliance
A. Operational best management practices (BMPs): All operations shall adopt the following BMPs to ensure their operations minimize potential risks to water resources.	
1. Precautions: The owner/operator shall take precautions to prevent accidental releases of hazardous materials. Hazardous materials shall be separated and prevented from entering stormwater drainage systems, septic systems, and drywells.	<ul style="list-style-type: none"> • Facility design • Operations SPCC plan • Spill contingency plan • Individual Industrial Stormwater Permit
2. Hazardous Materials Management: Hazardous materials shall be managed so that they do not threaten human health or the environment or enter water resources.	<ul style="list-style-type: none"> • Facility design • Operations SPCC plan • Spill contingency plan
3. Hazardous Material Releases: All hazardous materials that have been released shall be contained and abated immediately, and the hazardous materials recycled or disposed of properly. The City shall be notified of any release of hazardous materials that clearly impact water resources, as soon as possible but no later than 24 hours after the release. The [Ecology] Stormwater Manual provides applicable operational BMPs for spills of oils and hazardous substances.	<ul style="list-style-type: none"> • Operations SPCC plan • Spill contingency plan • Individual Industrial Stormwater Permit
4. Oil/Water Separators: Oil/water separators shall be inspected, cleaned, and maintained as stipulated in the stormwater manual. The City may allow an operation to modify the regularity of cleanouts if the operation can demonstrate to the City's satisfaction that the separator operates effectively at less frequent cleaning intervals.	<ul style="list-style-type: none"> • Individual Industrial Stormwater Permit

VMC 14.26.120 Requirement	Method of Compliance
5. Pesticide and Fertilizer Management. All pesticides, herbicides, fungicides, and fertilizers shall be applied and managed according to the applicable BMPs for landscaping and lawn/vegetation management in the [Ecology] Stormwater Manual, VMC 20.760 Shoreline Management Area, and VMC 20.740 Critical Areas Protection.	<ul style="list-style-type: none"> • Individual Industrial Stormwater Permit
6. Stormwater Treatment Systems: Stormwater drainage systems and treatment facilities, including, but not limited to, catch basins, wetponds and vaults, biofilters, settling basins, and infiltration systems, shall be cleaned and maintained by the responsible party designated in VMC 14.25.230 according to the applicable operational BMPs for the maintenance of stormwater, drainage and treatment systems in the [Ecology] Stormwater Manual.	<ul style="list-style-type: none"> • Individual Industrial Stormwater Permit
8. Operation Closure: At the closure of an operation, all hazardous materials shall be removed from the closing portion of the operation and disposed of in accordance with local, state and federal laws.	<ul style="list-style-type: none"> • Decommissioning Plan

2.10.2 Facility Design

The Facility will incorporate numerous design elements aimed at preventing the release of product and providing secondary containment of materials that are accidentally discharged so that they do not result in a spill that has the potential to cause harm to the environment or to human health.

Federal and state regulations that apply to handling hazardous materials and crude oil at the Facility, and transferring crude oil over marine waters to a receiving vessel mandate specific requirements for equipment configuration and operation and maintenance. An overview of preventive design elements is provided below.

2.10.2.1 Materials to Be Stored at the Facility

Table 2.10-3 summarizes oils, fuels, and hazardous materials to be stored at the Facility during construction and operation.

In addition, if any material has not been identified in the Tenant Environmental Questionnaire, or any increase in quantities stored is anticipated, the Applicant will also notify the Port in advance in compliance with the Port lease.

Table 2.10-3. Summary of Oils, Fuels, and Hazardous Materials to Be Stored at the Facility

Construction ¹	Operations
<ul style="list-style-type: none"> • Construction vehicle fuel (e.g., gasoline, diesel, kerosene) • Welding gases • Oil (e.g., transformer, lubricating) • Solvents and thinners • Paints • Antifreeze • Coatings and sealants • Batteries 	<ul style="list-style-type: none"> • Crude oil – 6 tanks (380k barrels (bbl) each) • Mineral spirits – 20 gals • Micro-Blaze (concrete stain remover) – 20 gals • WD-40 – 5 gals • CTI-220 – 110 gals • Simple Green Cleaner – 110 gals • Solvent (parts cleaner) – 20 gals • PB Blaster – 5 gals • Motor oil – 495 gals • Antifreeze – 275 gals • Hydraulic oil – 275 gals • Grease – 520 lbs • Mobile Polyrex EM (grease) – 120 lbs • Ultra-Low Sulfur Diesel – 3 tanks (500 gals each)

Note 1: The list will be finalized when the specific elements of the construction and operations SPCCP are developed.

2.10.2.2 Rail Unloading Facilities

As described in detail in section 2.3 above, crude oil unloading will be conducted so that under normal operations, the crude oil never comes into contact with the open atmosphere or unprotected ground surfaces.

Design elements aimed at preventing discharges of oil during unloading will include:

- The use of dry fit connectors on hoses connected to the rail car for unloading. Dry fit connectors require the operator to lock the connector into place to allow product flow to begin. When disconnected, all product on either side of the connector remains within the transfer hose or rail car.
- All conveyance of transferred oil occurs within piping and pumps such that crude oil exposure to the ambient atmosphere is minimized.

The unloading area incorporates the following containment systems:

- Containment pans between rails will capture unanticipated leaks from rail cars stationed in the unloading facility and from any unanticipated discharges from the unloading operations.
- Materials captured in the containment pans will drain to a dedicated piping system that will convey the liquids to secondary containment tanks located in Area 200. The secondary containment tanks will have a total capacity of 900 barrels, enough to contain the 110 percent of the contents of a single rail tank car. Should a discharge to these tanks occur, the contents of the tanks will be transferred to vacuum truck(s) to be disposed of at an approved location off site.
- As noted in section 2.3, piping and pumping systems associated with the unloading area will be contained within concrete trenches and concrete pump basins. These trenches and basins can serve as secondary containment in the event of a release from the piping and pumping equipment. Should a release occur, discharged materials will be removed from the trenches and basins using vacuum truck(s) to be disposed of at an approved location off-site.

- Ground surfaces between rail tracks in the unloading building will be asphalt or concrete to facilitate material recovery in the event of an unanticipated discharge.

2.10.2.3 Aboveground Storage Tanks

Following unloading, crude oil will be conveyed in transfer pipeline to the storage area (Area 300). Design elements aimed at preventing discharges of oil during unloading will include:

- As described in section 2.17, the storage tanks will be designed in conformance with applicable industry standards.
- The storage tanks will be constructed to meet the NFPA 30 requirements of WAC 173-18-330 and associated manufacturing standards, and will include the necessary measures to prevent tank overflow.
- As described in section 2.17, during construction of the tanks industry standard testing techniques will be implemented to ensure the tanks are constructed to the required specifications.
- As described in section 2.3.5, cathodic protection of the tank components will be implemented to prevent corrosion.
- Hydrostatic testing of the tanks will be conducted to ensure they will meet operational stresses and loads prior to their receiving any crude oil.
- Vegetation growth will be controlled within the bermed storage area to prevent vegetation roots from piercing the berm liner. Vegetation control will be accomplished using commercially available herbicides applied in accordance with local, state, and federal regulations.

Design elements related to containing unanticipated discharges will include:

- As described in section 2.3.5, the tanks will be constructed with a double tank bottom, with interstitial monitoring to detect leaks should they occur
- As described in section 2.3.5, constructing the tanks in a fully lined bermed area with the capacity to contain 110 percent of the largest tank and precipitation from a 24-hour, 100-year storm.

2.10.2.4 Transfer Pipelines and Pumping Systems

Crude oil will be conveyed between the unloading area, the storage area, and the vessel marine loading area using a system of transfer pipelines and pumps, as described in section 2.3.4.

Design elements aimed at preventing discharges of oil during conveyance will include:

- As described in section 2.17, the transfer pipelines will be designed in conformance with applicable industry standards.
- All conveyance of crude oil will occur within piping and pumps such that crude oil exposure to the ambient atmosphere is minimized.
- Transfer pipelines and the associated pumping systems will be equipped with flow and pressure sensors to identify out of the ordinary operating conditions that could be the result of a pipeline or pump failure and potential risk of crude oil discharge.
- Transfer pipelines will be equipped with valves at the exit of and entry to the unloading area, the storage area, and the marine vessel loading area. These valves will include 30-second shut-offs to stop the flow of product should anomalous flow and pressure conditions related to a product spill occur, or in response to operations personnel triggering the shutoff.
- Transfer piping will be for the most part installed aboveground to facilitate inspections and maintenance. Where road or rail crossings occur, the piping will be housed in underground

steel casings or raised aboveground using standard AREMA clearances (see section 2.3.4, Figure 2.3-9 for an illustration of typical road and rail crossings). Pipelines at each railroad, or road crossing will be designed and installed to adequately withstand the dynamic forces exerted by anticipated traffic or rail loads.

- Transfer pipelines will be coated and cathodically protected to prevent corrosion.
- Sections of transfer pipelines constructed underground will be installed so that they are not in electrical contact with any metallic structures. This requirement will not preclude the use of electrical bonding to facilitate the application of cathodic protection. Tests will be carried out to determine if stray currents are present and protective measures will be taken.
- Transfer pipelines will be equipped with leak detection systems meeting regulatory standards.
- All pumps will have internal pressure relief systems to avoid overpressure.

Design elements related to containing unanticipated discharges will include:

- Piping systems associated with the unloading of crude oil in Area 200 will be placed in concrete trenches; these trenches can serve as secondary containment in the event of a product discharge. Should a discharge occur in the trench, the materials will be removed by vacuum truck and recycled or disposed off site at an approved location.
- Pumps will be located in concrete basins; the concrete basins can serve as secondary containment in the event of a product discharge. Should a discharge occur in the pump basins, the materials will be removed by vacuum truck and recycled or disposed off site at an approved location.

2.10.2.5 Marine Vessel Loading

As described in section 2.3.5, the trestle at Berth 13 will be equipped with piping and hoses to transfer the crude oil from the transfer pipeline system to the receiving marine vessel. In accordance with 33 C.F.R. § 154.530 a facility transferring oil or hazardous materials to or from a vessel with a capacity equal to or greater than 250 barrels, must have fixed catchments, curbing, or other fixed means for small discharge containment of materials at the hose handling and loading arm area, each hose connection manifold area, and under each hose connection that will be coupled or uncoupled as part of the transfer operation. For this Facility, it is anticipated that the hose diameter will be between 6 and 12 inches, requiring that discharge containment capacity must be at least three barrels.

At Berth 13, a catchment and sump capable of holding 3 bbl of discharge will be constructed at or below the deck level of sufficient capacity to hold the small discharge containment in addition to stormwater that may fall in the catchment area. The containment will be discharged within one hour of completion of any transfer by pumping into the return line.

In addition the design elements aimed at preventing discharges of oil during conveyance will include:

- Hoses and their supporting equipment will be designed to meet the applicable hose protection requirements of WAC 173-180 Part B and 33 CFR 156.
- All piping located over water will be welded and will not contain any mechanical joints.
- Vessel mooring systems will meet the applicable requirements of 33 CFR 156.

2.10.2.6 Booming

In accordance with the requirements of WAC 173-180, the Applicant will prepare and implement a booming plan. The purpose of the booming plan is deploy booms in advance of each oil transfer to ensure that any materials accidentally discharge to surface water can be contained.

The Facility will be classified as a “Class I” facility under WAC 173-180-025 (8), that meets “Rate A” oil transfer conditions (i.e., transfers greater than 500 gallons per minute, per WAC 173-180-220 (2)(a). The Facility will, therefore, be required to meet the pre-booming requirements and Rate A alternative measure requirements of WAC 173-180-221. In accordance with these requirements, the Facility will develop and submit for approval a “safe and effective threshold determination report.” This report will identify a Facility-specific booming strategy taking into account ambient conditions (e.g., currents, wind speeds, vessel traffic, etc.) to ensure that transfers are conducted to meet the standards for safe oil transfer operations and meet the zero spill goal (WAC 173-180-010). The Applicant will develop a safe and effective determination report based on final terminal design, and will submit the report for state review and approval 120 calendar days prior to the first oil transfer operation at the Facility as required by WAC 173-180-224 (4).

Based on the preliminary design of the Facility as presented in this ASC, and experience with oil transfers at other facilities, the Applicant has performed a preliminary review of booming requirements and anticipates the pre-booming system will consist of a fence boom placed between the vessel location and the shoreline, and a floating boom deployed after a vessel is at the berth. The floating boom would be connected with the fence boom on the downstream and will be open on the upstream offshore side of the moored vessel due to currents.

Figure 2.10-1i illustrates this conceptual pre-booming configuration. As noted above, the final configuration will be submitted for review to the state.

The fence boom would be secured with tide slides and fixed down wires hung from the berth structure. The floating boom would be stored on the berth, and would be deployed using a boom boat. Once in place, the floating boom would be anchored at the upriver end to hold the boom position during the transfer operation.

The booming system would be designed with connections for a rapid oil skimmer (also known as a “Harbor Buster”) designed for use in current speeds expected at the facility. The Harbor-Buster would be stowed on the berth, for example on a small aluminum flat-barge with wheels. When needed, it would be launched. The barge would be designed for compatibility with the boat that is used for deploying the floating boom. The boat would maneuver the Harbor Buster-barge into position where the fence- and floating- boom pigtails would be attached to the Harbor Buster and it is then deployed into the water from the barge or would be a stand-alone recovery boom just downstream from the dock.

The Applicant proposes to implement the following state of the art equipment during vessel loading operations in support of the pre-booming requirements:

1. Fence Boom – 1,200-foot total length in 100-foot sections, the fence boom must be 18 inches in height. End connectors will be made of aluminum and be the ASTM Universal Slide connector.
2. Containment Boom – 1,000 feet in length in 100-foot sections, the boom will have 12 inches of freeboard with a 6-inch skirt. The outer fabric will be 26-ounce PVC and the flotation logs will be in 3-foot lengths to accommodate being placed on a reel for deployment and recovery. The end connectors will be made of Aluminum and be the ASTM Universal Slide connector.
3. Containment Boom – This boom will be 2,000 feet total length in 100-foot sections, the boom will have 12 inches of freeboard with a 6-inch skirt. The outer fabric will be 26-ounce PVC and the flotation logs will be in 6-foot lengths to accommodate being placed in a connex box on shore. The end connectors will be made of aluminum and be the ASTM Universal Slide connector.
4. Twenty foot Connex – This connex is to store the boom listed in item 3 above and will be placed along the shoreline near the berth for rapid deployment.
5. Aluminum Hydraulic Boom Reel – Reel must be designed large enough to contain 1,000 feet of the contractor boom in item 2. It must be hydraulically controlled for deployment and recovery of the boom. There must be an override on the hydraulic system so boom can be deployed without hydraulic power also.
6. Boat – One boat constructed of aluminum material (minimum of 24 feet in length with at least a 6-foot beam for stability) with 200 horsepower. Tow post must be a minimum of three feet forward of the turning axis to ensure mobility while towing boom. Boat must have center council with a cab to provide weather shelter for crew.
7. Rapid Response Boom – NOFI Current Buster 2 Systems, two each of these systems. Each system will come on a reel in a container on a flatbed trailer towable by three-quarter ton or one-ton pickup truck. Each container will house the reel and the diesel power pack to deploy and retrieve the boom. Each container will house two each portable leaf blowers for inflating the boom as it is deployed. This type of boom is effective in currents up to 5 knots and can contain up to 95 barrels of oil in the separator bag. Figure 2.10-1(a) is an example of a container housing a reel and diesel power pack to deploy and retrieve the boom.
8. Skimmers for Rapid Response Boom – two each 13/30 fuzzy disc skimmers with diesel hydraulic power pack. Skimmer and power pack with the hydraulic hoses and discharge line. Figure 2.10-1(b) is a photograph of this type of skimmer.

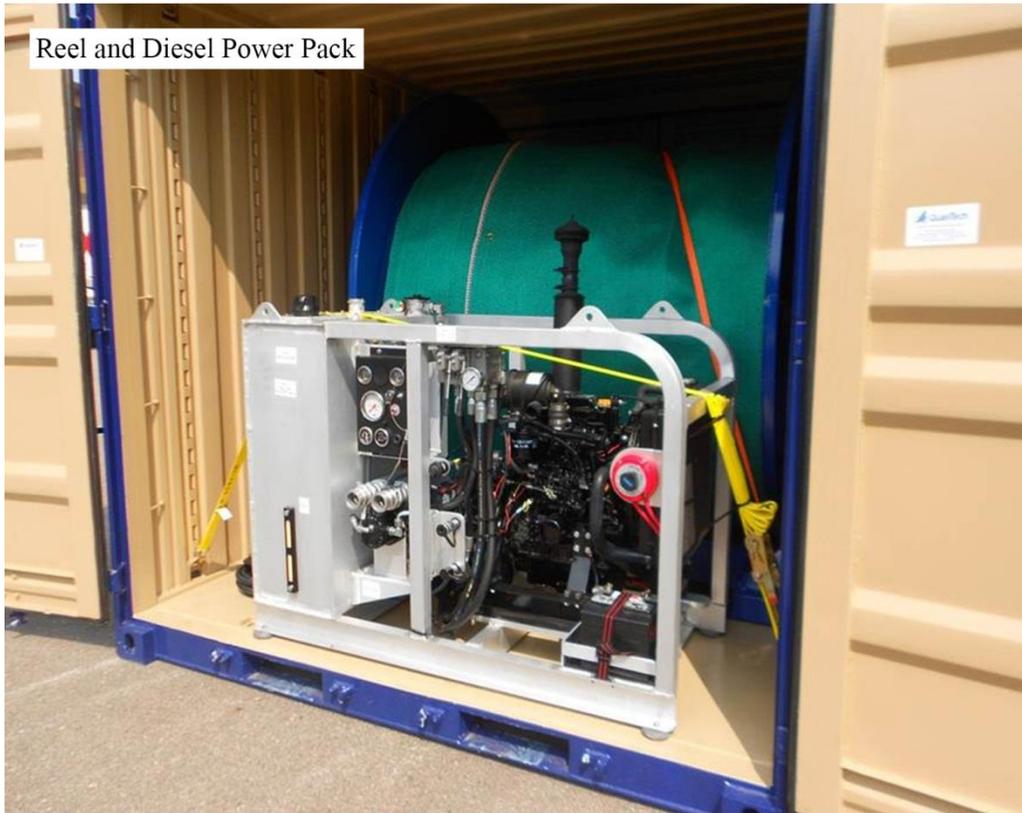


Figure 2.10-1. Rapid Response Boom Skimmer and Reel

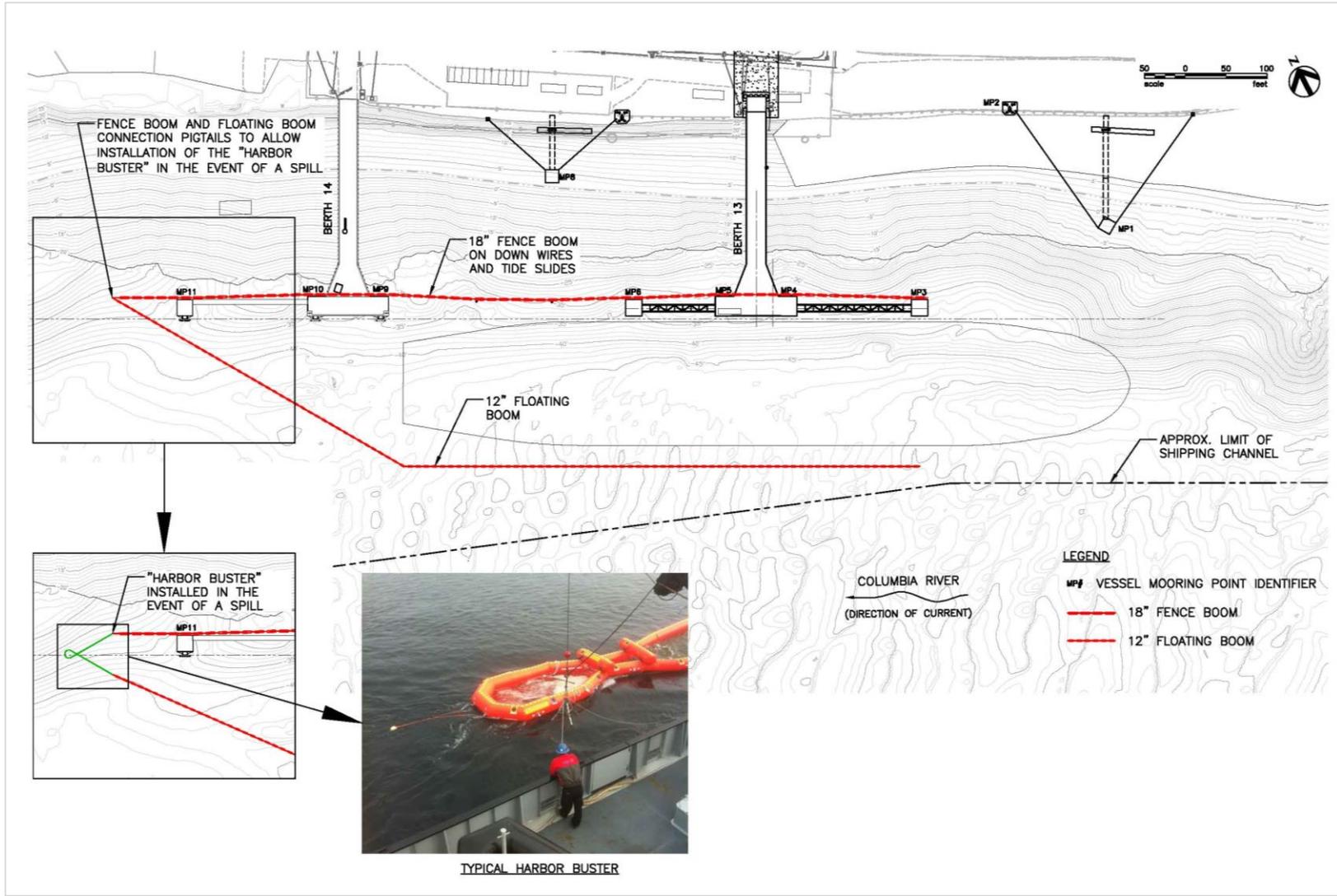


Figure 2.10-1i. Preliminary Pre-Booming Diagram

2.10.3 Spill Prevention, Control, and Contingency Planning

2.10.3.1 Facility Construction

The Applicant will have the overall responsibility for compliance with state and federal environmental regulations during construction. The construction management lead will develop and implement a construction SPCC plan in accordance with 40 CFR 112 for compliance with state and federal environmental regulations. The SPCC plan will be submitted to EFSEC for review and approval prior to beginning construction. The employees of the construction contractor will oversee field activities and coordinate the requirements of the SPCC plan. The contractor will be responsible for inspections, training its employees in spill prevention and control, and, if an incident occurs, for containment and cleanup.

The construction SPCC plan will address responsible personnel, spill reporting, project and site information, pre-existing contamination, potential spill sources, spill prevention and response training, spill report form(s), plan approval, and SPCC plan acknowledgement forms (to be signed by all project personnel).

2.10.3.2 Facility Operations

The Applicant will prepare and implement the following plans to comply with state and federal requirements.

- An operations SPCC plan, prepared under 40 CFR 112 and WAC 173-180, Part F; a preliminary operations SPCC plan is included as Appendix B.2
- A safe and effective threshold determination report, prepared under WAC 173-180-224
- A pre-loading transfer plan according to WAC 173-180-230
- A facility operations manual in compliance with WAC 173-180 400 to -435
- An oil transfer training program in compliance with WAC 173-180, Part E
- A certification program in compliance with WAC 173-180, Part E
- A spill contingency plan in compliance with WAC 173-182, 40 CFR 112, Subpart D and 33 CFR 154, Subpart F; a preliminary Oil Spill Contingency Plan is included as Appendix B.3

To comply with this complex regulatory context, the Applicant will prepare coordinated plans to meet all applicable local, state, and federal requirements.

Section 2.11 – Surface Water Runoff

WAC 463-60-215

Proposal – Surface water runoff.

The application shall describe how surface-water runoff and erosion are to be controlled during construction and operation to assure compliance with state water quality standards. The application shall describe in general detail the content of the construction and operational storm water pollution prevention plans that will be prepared prior to commencement of construction and/or operation of the facility.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-215, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-215, filed 10/8/81. Formerly WAC 463-42-330.)

Section 2.11 Surface Water Runoff

2.11.1 Stormwater Erosion Control during Construction

Managing construction stormwater to reduce the discharge of contaminated stormwater runoff requires implementing specific procedures on site before construction activities begin. Additionally, monitoring, maintaining, and overseeing erosion control practices are necessary to ensure strict compliance. Site-specific erosion control plans and a comprehensive stormwater pollution prevention plan (SWPPP) will be submitted to EFSEC before construction.

A preliminary SWPPP is attached as Appendix C. The plan includes a preliminary site-specific erosion and sediment control plan, construction best management practices (BMPs), and construction phase enforcement procedures.

A final SWPPP, which will be submitted to EFSEC prior to construction, will meet the requirements of the NPDES Industrial Permit and State Construction Stormwater General Permit and reflect final construction plans. The final plan also will include provisions for permanent stormwater management as discussed further in section 2.11.2. Once completed and submitted to EFSEC, the implementation of the construction BMPs is the responsibility of the contractor, supervised by the Applicant’s resident inspector, and enforced by EFSEC.

Site Construction

Site-specific BMPs for temporary erosion and sediment control are identified in the SWPPP and erosion and sediment control plans. BMPs have been selected from the Stormwater Manual and will comply with the permit issued for the project by EFSEC.

Construction activities will be sequenced and controlled to limit erosion. Clearing, excavation, and grading will be limited to the areas necessary to construct the project. Interim surface protection measures, including dust control, straw matting, and erosion control blankets, will be required to prevent erosion. Final surface restoration will be completed within 14 days of the area’s final disturbance.

Sediment control measures used throughout construction will be designed based on a 10-year design storm. Water quality measures (other than sediment removal) will be based on the 6-month, 24-hour design storm. All construction practices will emphasize erosion control over sediment control. Temporary cutoff swales and ditches will be installed to route stormwater to the appropriate sediment trap and discharge location. A summary of construction-related BMPs is provided below.

Table 2.11-1. Construction Source Control BMPs

BMP Devices	Area 200 Unloading & Office	Area 300 Storage	Dock Area 400 Marine Terminal	Pipeline Alignment Area 500 Transfer Pipelines	Area 600 West Boiler	Rail Infrastructure
Silt Fencing	X	X	X	X	X	X
High Visibility Fencing	X	X		X		
Sediment Pond	X	X				

	Area 200 Unloading & Office	Area 300 Storage	Dock Area 400 Marine Terminal	Pipeline Alignment Area 500 Transfer Pipelines	Area 600 West Boiler	Rail Infrastructure
BMP Devices						
Compost Sock		X	X	X		
Inlet Protection	X	X	X	X	X	X
Stabilized Construction Entrance	X	X			X	
Temporary Seeding/Mulching		X	X	X	X	
Concrete Washout	X	X				
SWPPP	X	X	X	X	X	X

Water of hydrostatic testing be obtained from the City or Port systems and will be discharged through the onsite stormwater treatment systems for disposal through the existing stormwater systems. Water used for flushing and hydrostatic testing will be tested and treated to removal chlorination of other constituents if necessary prior to its discharge to ensure compliance with discharge limits. Testing water will be released at a controlled rate from onsite storage facilities and monitored to ensure safe conveyance through downstream system. Discharge of flushing and hydrostatic testing water is identified as an authorized non-stormwater discharge according to Section S1.C.3 of the Construction Stormwater General Permit for the State of Washington as issued by Ecology.

2.11.2 Permanent Stormwater Management

Existing land cover on the site is primarily gravel or compacted fill material. Vegetation on the site is sparse and is generally limited to short (6 to 8 inches) herbaceous plant material. No wetlands or wetland vegetation are present on the site. The total combined site area comprises approximately 44.9 acres, and the developed impervious area is estimated to be 38.2 acres.

The Port receives approximately 38.9 inches of rain per year measured at the Simmons Rain Gauge located at 16001 N. Simmons Road in Portland, Oregon and maintained by the City of Portland Bureau of Environmental Services as reported by the USGS Oregon Water Science Center. The Simmons rain gauge is located approximately 10,500 feet from the project site and has been in continuous operation since January 2010. The Ecology stormwater manual requires stormwater to be designed assuming rainfall patterns follow a Type I-A distribution. Permanent stormwater management and compliance with City and Ecology standards require construction of storm drain systems to collect and treat stormwater.

The Facility's new development and redevelopment will comply with VMC Section 14.25 and will be regulated by the City's January 17, 2007 NPDES Western Washington Phase II Municipal Stormwater Permit and the mandatory provisions it incorporates from the 2012 edition of the Ecology stormwater manual. The following table summarizes changes to land coverage resulting from this project.

Table 2.11-2. Drainage Basin Areas

	On-site Drainage Areas				Off-site Drainage Areas	
	Existing Impervious Surface	Replaced or Maintained Impervious Surface	Separated Impervious Roof Runoff	Impervious Surface Converted to Landscaping	Impervious Surface Contributing to Project Drainage System	Replaced Impervious Surface
Area 200 Unloading and Office	8.65 ac	4.07 ac	4.21 ac	0.37 ac	0.06 ac	-
Area 300 Storage	20.85 ac	12.84 ac	6.39 ac	1.62 ac	-	0.17 ac
Area 400 Marine Terminal	1.00 ac	0.90 ac	0.03 ac	0.07 ac	0.08	-
Area 500 Transfer Pipelines	4.47 ac	4.47 ac	-	-	-	-
Area 600 West Boiler	0.46 ac	0.16 ac	0.15 ac	0.15 ac	0.04 ac	-
Rail Infrastructure	4.63 ac	4.63 ac				
Total	40.06 ac	27.07 ac	10.78 ac	2.21 ac	0.18 ac	0.17 ac

The land-disturbing activity that will be carried out by the project will exceed the regulatory threshold of the City’s NPDES Phase II permit for application of the standards for water quality treatment. Therefore, minimum requirements 1 through 9 of the Ecology stormwater manual apply to the project. A detailed discussion of compliance with all minimum requirements is attached in the stormwater report in Appendix F.

The project therefore will require compliance with the following standards and regulations.

- Ecology Stormwater Manual
- City of Vancouver Municipal Code (VMC) VMC 14.24, 14.25 and 14.26
- City Surface Water General Requirements (revised September 2009)
- Port Industrial General Stormwater Permit
- Port Municipal Phase II General Stormwater Permit
- 40 CFR 112

The project requires compliance with all nine of the minimum requirements set forth in the Ecology stormwater manual.

2.11.2.1 Source Control BMPs

Operational and structural source control BMPs are designed to exceed the requirements of Chapter 2, Volume IV of the Ecology stormwater manual. Onsite operations, including unloading, pumping, transfer, and storage of crude oil and miscellaneous materials, are conducted in covered facilities designed to keep stormwater from entering the structures and mixing with industrial activities. Transfer of crude oil at the dock is completed with a closed piping system where oil transfer will not be exposed to stormwater. To the maximum extent possible, all industrial activities are protected from stormwater.

Secondary structural containment measures are in place; they consist of rail drip pans along the unloading terminal, double bottom tanks with in situ monitoring for the tank farm, and a lined berm that surrounds the tank farm and is sized to exceed the storage requirements of 110 percent of the largest tank plus a 100-year rainfall event. Secondary containment system at the rail unloading building are conveyed to double-walled storage tanks located near the office building

where the contents will be hauled offsite to permitted disposal or recycling facility. A series of manually controlled pumps that discharge to hydrodynamic separators, oil water separators, and water quality filter vaults evacuate the stormwater contained within the tank farm berm. The pumps are manual on, automatic off to require that each time the pumps are turned on supervising personnel conduct a visual inspection for oil sheen. Personnel are stationed at the control room/E-house at the storage area 24 hours a day and will be monitoring conditions continuously.

Parking and access areas are designed with a combination of catch basin filters and filter vaults to treat stormwater runoff. Filter vaults are designed to include an oil-water separating baffle for added protection from minor sources such as vehicles.

Maintenance, including equipment and parts wash, will be conducted in a covered portion of the rail unloading building. All wastewater produced will be pumped to the secondary containment tanks located at the Administration and Support Buildings to be hauled off site and disposed of at an approved location.

Spill containment measures along the pipeline alignment (Area 500) will comply with 40 CFR 112.7 by providing secondary containment, inspections, and contingency planning. Federal regulations require that containment measures be designed for the most likely quantity of oil that will be discharged during the typical failure mode (40 CFR 112.7 (5)(c)). The most likely spill event is small drips resulting from nicks, corrosion pinholes, or gasket seal failures resulting in discharges less than 5 gallons. An example of secondary containment that can address these discharges is to confirm or retrofit all stormwater inlets within the contributory drainage area of the pipeline alignment with spill control devices to contain small oil leaks or spills. Containment measures and response protocols for larger non-typical events will be addressed in the Spill Prevention, Control, and Countermeasures Plan, as well as the Contingency Plan that will be prepared prior to beginning operation of the Facility.

2.11.2.2 Operational Source Control BMPs

In addition, containment drip pans and other containment measures will supplement the structural source control BMPs. A comprehensive site-specific spill prevention control and countermeasures (SPCC) plan will be developed in accordance with 40 CFR 112; a preliminary outline of the SPCC plan is attached as Appendix B.2.

Table 2.11-3. Applicable Structural Source Control & Operational BMPs

Subbasin No.	S411 Landscaping and Lawn/Vegetation Management	S412 – Loading & Unloading Areas	S415 – Maintenance of Public & Private Utility Corridors & Facilities	S417 – Maintenance of Stormwater Drainage & Treatment Systems	S421 – Parking & Storage of Vehicles and Equipment	S422 – Railroad Yards	S425 – Soil Erosion & Sediment Control at Industrial Sites	S426 – Spills of Oil & Hazardous Substances	S427 Storage of Liquids in Permanent Aboveground Tanks	S431 Washing & Steam Cleaning of Vehicles/Equipment/Building Structures
Area 200 Administrative and Support Buildings	X	X	X	X	X			X	X	

Subbasin No.	S411 Landscaping and Lawn/Vegetation Management	S412 – Loading & Unloading Areas	S415 – Maintenance of Public & Private Utility Corridors & Facilities	S417 – Maintenance of Stormwater Drainage & Treatment Systems	S421 – Parking & Storage of Vehicles and Equipment	S422 – Railroad Yards	S425 – Soil Erosion & Sediment Control at Industrial Sites	S426 – Spills of Oil & Hazardous Substances	S427 Storage of Liquids in Permanent Aboveground Tanks	S431 Washing & Steam Cleaning of Vehicles/Equipment/Building Structures
Area 200 Rail Offloading Area		X	X	X		X	X	X		X
Area 300 Storage Area	X			X			X	X	X	
Area 300 & 700 Support Buildings & Parking	X	X	X	X	X		X	X		
Area 400 Marine Terminal	X	X	X	X	X		X	X		
Area 500 Transfer Pipeline				X				X		
Area 600 West Boiler	X	X		X	X		X			
Rail Improvements				X		X	X	X		

2.11.2.3 Water Quality Treatment Analysis and Design

In accordance with the City’s General Requirements, the Western Washington Hydrology Model (WWHM) with a continuous storm event was used to size the stormwater treatment system. Per the General Requirements, the water quality storm is the 6-month, 24-hour event, as estimated using the WWHM. A simplified model for each subbasin was developed in the WWHM 3.0 software. Water quality model results are included in the stormwater report in Appendix F. This estimated peak flow was used to size the stormwater treatment system.

2.11.2.4 Flow Control Analysis and Design

The project discharges to existing Columbia River outfalls through existing manmade conveyance pipelines. This project is categorically exempt from the flow control provisions of the stormwater manual. According to Appendix I-E of the manual, the Columbia River is listed as a flow control-exempt water body.

Conveyance pipelines and structures on site were sized for the 100-year storm to ensure safe conveyance. The pipeline running along the south side of the rail unloading building was additionally analyzed to ensure capacity to convey 1,000 gpm of water entering the system at the extreme west and east ends of the building from the fire suppression systems. Conveyance pipelines were designed using Manning’s equation assuming that the pipelines are flowing at 75 percent of capacity. Grade of the proposed pipelines was determined assuming 2.5 feet per second using the 2-year storm event.

2.11.3 Permanent Waterways

All of the permanent surface water runoff will be collected, treated, and conveyed in permanent constructed conveyances from source to discharge. All conveyances constructed with this project

will be inlets, pipelines, manholes, and vaults. No permanent above-grade surface waterways will be constructed with this project. Surface water runoff from the Storage Area will be treated to enhanced water quality standards and discharged to the Terminal 4 stormwater system. The capacity of the Terminal 4 stormwater system was sized to accommodate flows from the Storage Area assuming the entire Parcel 1A was impervious. Discharges will be conveyed through existing pipelines to an existing outfall to the Columbia River.

Discharges from Area 200, Area 600, rail improvements, and portions of Area 500 will be treated to basic levels and discharged to the existing Terminal 5 stormwater system. The Terminal 5 conveyance system flows through manmade conveyance to water quality ponds located west of Terminal 5 for final treatment prior to discharge through an existing outfall to the Columbia River.

Discharges from Area 400 will be treated and conveyed to existing infiltration swales located immediately north of the site. The MVCU, as proposed, may impact approximately 4 percent of the treatment capacity of the bio-swales located immediately south of the Subaru facility. These swales treat water from the 25-acre basin including Subaru, CalPortland, and Marine Terminal Area. To mitigate for loss of treatment capacity of the swale, a new filter strip located along the south side of the southernmost swales will be constructed and will treat stormwater from more than 4 percent of the total basin acreage. No additional stormwater will be infiltrated.

The remaining project, consisting of a portion of Area 500 along the old Gateway Avenue, is considered within the Port's general use area. Stormwater will be collected through existing inlets and a conveyance system and discharged into the Port's stormwater treatment systems at either Terminal 4 or Terminal 5 for treatment prior to discharge through existing outfalls to the Columbia River.

Upland construction activity will not affect any permanent waterways. Existing downstream conveyances, treatment systems and/or infiltration facilities are already receiving stormwater from the Facility areas. See Sections 3.3 and 3.4 for a detailed discussion of design and construction methodologies for dock improvements in relation to protecting and preserving natural waterways.

Section 2.12 – Emission Control

WAC 463-60-225

Proposal – Emission control.

- (1) The application shall describe and quantify all construction and operational air emissions subject to regulation by local, state or federal agencies.*
- (2) The application shall identify all construction and operational air emissions that are exempt from local, state and federal regulation, and the regulatory basis for the exemption.*
- (3) The applicant shall demonstrate that the highest and best practicable treatment for control of emissions will be utilized in facility construction and operation.*
- (4) The application shall identify all state and federal air emission permits that would be required after approval of the site certification agreement by the governor, and the timeline for submittal of the appropriate applications for such permits.*
- (5) In the case of fossil-fuel fired energy plants, the application shall describe and quantify all emissions of greenhouse gases.*
- (6) In the case of a nuclear-fueled plant, the applicant shall address optional plant designs as these may relate to gaseous emissions.*

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-225, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1). 92-09-013, § 463-42-225, filed 4/2/92, effective 5/3/92. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-225, filed 10/8/81. Formerly WAC 463-42-520.)

Section 2.12 Emission Control

The Facility has the potential to emit air pollutants during both construction and operations. During construction, emissions will primarily consist of dust and exhaust from construction vehicles and equipment. During operation, air pollutant emissions will result from the following project components:

- natural-gas fired boilers to provide steam to facilitate transfer of crude oils from rail cars to storage tanks and from storage tanks to vessels;
- MVCU that combust hydrocarbons displaced from vessels as they are filled;
- storage tank evaporative and working losses;
- emergency engines to power firewater pumps; and
- leakage from components.

Air pollutant emissions from these emissions units include “criteria” pollutants designated by the EPA such as nitrogen oxides (NO_x), carbon monoxide (CO), and sulfur dioxide (SO₂), as well as airborne solids and liquids that combine in what is referred to as particulate matter (PM). Volatile organic compounds (VOCs), which are a precursor to the criteria pollutant ozone (O₃), also will be emitted. In addition, emissions will include toxic air pollutants (TAPs), as regulated in Washington under WAC 173-460 and defined in WAC 173-460-150, and hazardous air pollutants (HAPs) as defined and regulated under 40 CFR Part 63. The proposed Facility will utilize a set of best practices and the pollution control equipment to comply with state and federal air quality law.

2.12.1 Regulatory Authority

The authority for air permitting is granted to EFSEC under RCW Chapter 80.50 for crude oil facilities that receive more than an average of 50,000 barrels per day transported over marine waters. This authority is promulgated under WAC Title 463. To address air quality, EFSEC has adopted the provisions of WAC 173-400 (General Regulations for Air Pollution Sources) by reference under WAC 463-78-005.

The federal and Washington clean air acts require new (industrial) stationary sources to obtain the applicable air pollution permits before commencing construction. The permitting process, referred to as new source review (NSR), is used to ensure that the source uses the best available control technology (BACT) to limit emissions and does not cause ambient pollutant concentrations to exceed established standards. Some emission units may have to comply with new source performance standards (NSPS) if they fit the classification for units defined in 40 CFR Part 60.

The air permits required for a source vary depending on its emission potential and location. If the source is located in an area where federal and state ambient air quality standards have not been violated (referred to as an “attainment” area), then the source is subject to the prevention of significant deterioration (PSD) permitting program. If the source is located in a region where concentrations exceed ambient standards, the area is deemed “non-attainment” and the source is permitted under the non-attainment NSR (NNSR) program. The source is considered “major” if the potential-to-emit (PTE) of any one designated pollutant exceeds the PSD threshold for that pollutant. A source can avoid being classified as major by seeking enforceable operations limits in its permit application.

The proposed Facility will be located in a region considered to be in attainment for all criteria pollutants and therefore would be subject to PSD review. However, the region has been in non-attainment in the past and is therefore regulated under regional air quality “maintenance” plans whose purpose is to ensure continued compliance. New stationary sources may therefore be subject to additional requirements set forth in the regional maintenance plans.

Vancouver is designated as a carbon monoxide maintenance area. The region was a carbon monoxide non-attainment region until compliance was demonstrated in 1992; since then, the implementation of a maintenance plan to sustain attainment has been required. The Southwest Clean Air Agency (SWCAA) Section 400-111 rules contain measures for new major stationary sources as part of the maintenance plan. The proposed Facility will not exceed the threshold of 100 tons-per-year of carbon monoxide designated in the plan for major stationary sources and therefore no additional measures are required to comply with the maintenance plan.

Vancouver is also located in an ozone maintenance area and is therefore subject to the Washington state implementation plan (SIP) part of the Portland-Vancouver ozone maintenance plan. The Portland-Vancouver region was declared as “in attainment” for ozone in 2004 and has since required adherence to a maintenance plan. Under the SWCAA Section 400-111 rules, new major stationary sources must offset VOC and nitrogen oxides emissions or may apply to SWCAA for an allocation of the available growth allowance. The proposed Facility will not exceed the threshold of 100 tons per year of VOC or nitrogen oxides designated in the plan for major stationary sources and therefore no additional measures are required to comply with the maintenance plan.

TAP emissions are addressed through NSR as specified in WAC 173-460. All TAPs whose potential emissions exceed the *de minimis* rate must undergo review. If emissions of any TAP exceed the corresponding small quantity emission rate (SQER), dispersion modeling must be conducted to demonstrate that ambient concentrations of that TAP do not exceed a pollutant-specific acceptable source impact level (ASIL). The ASILs, SQERs, and *de minimis* values for each TAP are listed in WAC 173-460-150. Some emission units may need to comply with national emissions standards for hazardous air pollutants (NESHAPs) for unit classes defined under 40 CFR Parts 61 and 63.

Since January 2, 2011, the EPA has regulated the emission of greenhouse gases (GHGs) in the NSR process. GHGs are regulated as a single air pollutant defined as the aggregate of six gases (carbon dioxide [CO₂], nitrous oxide [N₂O], methane [CH₄], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF₆]). Potential emissions are determined by a CO₂ equivalency (CO₂e) that takes into account the potential of each gas to absorb terrestrial radiation through a “global warming potential” weighting factor. Under the PSD tailoring rule for new sources, GHGs require PSD review if 1) the source triggers PSD review for any criteria pollutant and annual GHG emissions exceed 75,000 tons, or 2) the potential annual emissions of GHGs equal or exceed 100,000 tons CO₂e.

Because the Facility would be a new source of air pollutants, under the Clean Air Act (CAA), it must undergo NSR to obtain the applicable air pollution permits before construction begins. The permitting process is used to ensure that the proposed Facility complies with state and federal air quality laws and does not contribute to any future violation of the state and national ambient air quality standards.

Based on the annual emissions identified in section 2.12.2, the proposed Facility is required to apply for and obtain the following permits:

- A notice of construction (NOC) preconstruction permit, as required under WAC 173-400-110, which identifies potential emissions of criteria air pollutants and TAPs; addresses BACT for proposed emission units; and presents an air quality modeling analysis demonstrating compliance with ambient air quality standards and TAP criteria.
- A PSD permit, as required under WAC 173-400-830, addressing BACT for greenhouse gases.
- A Title V air operating permit, as specified under WAC 173-401 and as required for major sources. The application must be submitted within 1 year of commencing operation of the Facility and requires renewal every 5 years.

PSD review is required because the Facility will emit annual amounts of GHGs that are greater than the PSD threshold of 100,000 (CO₂e) and 100,000 tons per year (actual mass). The emissions of all other regulated air pollutants are under the threshold where they must be evaluated under PSD review. The annual emission rate calculations for Facility operations are discussed in detail in section 2.12.2.2.

The Facility includes control equipment to limit emissions of hydrocarbons when the vessels are loaded. The MVCU is composed of components that include a collection system and thermal combustor. The design and operation of such equipment is regulated by the USCG under 33 CFR Part 154. Therefore, approval of the control equipment also must pass review of the appropriate USCG regulatory arm.

2.12.2 Criteria Pollutants

The six common air pollutants, referred to as criteria pollutants, are ozone (O₃), particulate matter (PM), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), and lead (see section 3.2.1 for an expanded discussion of these pollutants). There is no significant emission source of lead associated with the proposed Facility. Although no significant source of ozone is associated with the Facility, nitrogen oxides and VOCs react in the atmosphere to form ozone and these pollutants will be emitted during Facility operations. The NAAQS address particulate matter in terms of the size fractions PM₁₀ and PM_{2.5}, which include inhalable particulate matter smaller than 10 microns in diameter and fine particulate matter smaller than 2.5 microns in diameter, respectively. Virtually all the particulate matter generated by the Facility will be PM_{2.5}, and this application refers to all size categories generically as PM. Nitrogen oxide air pollutants include nitrogen dioxide and nitric acid.

2.12.2.1 Construction Emissions

Equipment

Construction equipment includes heavy diesel vehicles, cranes, and generators used for excavation, Facility construction, and paving. Diesel engines emit criteria and TAPs. Diesel engine emissions are regulated under federal standards for mobile sources.

Odor

Intermittent and temporary odors may be discernible off site during construction because of the use of diesel vehicles and because of paving, painting, and other construction activities.

Dust

Fugitive dust emissions generated during construction will be mitigated through compliance with existing nuisance regulations. Common work practices include the application of water to unpaved areas to prevent entrainment of dust. During construction, emissions are also minimized by covering exposed piles, limiting vehicle speed, and other BMPs.

2.12.2.2 Operations Emissions

Boilers

Because some crude oils do not flow easily when cold, the Facility will include natural gas-fired boilers to generate steam for heating rail cars and storage tanks. At the rail car unloading building, three boilers, each with a nameplate heat input capacity of 62 MMBtu/hr, will be installed to facilitate transfer from the rail cars. The unloading boilers are expected to operate throughout the year, but at varying loads dictated by railcar arrival schedules and the viscosity of the crude oil contained in the railcars. Typically, no more than two boilers will operate at any given time, with the third boiler kept as a redundant unit. However, to allow for uninterrupted steam supply, the third boiler may operate for a limited period of time before one of the operating boilers is shut down. The calculation of annual emissions from the unloading boilers was based on the conservative assumption that two of the boilers were assumed to operate at full capacity every hour of the year. This assumption is sufficient to address the occasional startup of the third unit.

Two natural gas-fired boilers, each with a nameplate heat input capacity of 12.5 MMBtu/hr, will be installed to provide steam to heat the crude oil storage tanks. Typically, only one of the storage area boilers will operate at any given time, with the second kept as a redundant unit. However, to allow for uninterrupted steam supply, the second boiler may start up and produce steam for a limited time before the operating boiler is shut down. Annual emission calculations are conservatively based on continuous use of one boiler every hour of the year, but the actual operation will depend on crude oil viscosity and loading schedule. This conservative assumption is sufficient to address the occasional startup of the second unit.

Stationary equipment units associated with the Facility are subject to federal NSPS. Subpart Dc applies to steam-generating units that commence construction, modification, or reconstruction after June 9, 1989, and have a maximum design heat input capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr. Subpart Dc will apply to all natural gas-fired boilers at the Facility because each one has a maximum design heat input capacity within the range specified by the standard.

Because these boilers will be fired solely with natural gas, the PM and SO₂ emission standards defined in Subpart Dc do not apply and only the record-keeping and reporting provisions of Subpart Dc apply. These requirements include maintaining records of daily fuel use and occurrence and duration of startup, shutdown, or malfunction; malfunction of control equipment (if any) Boiler emissions will include criteria pollutants and TAPs. The most effective and feasible control equipment options and corresponding emission rates are determined in a BACT analysis for the boilers, attached in Section 5.1, Attachment 1. Boiler emissions are more specifically addressed in Section 5.1.

Crude Oil Storage Tanks

The Facility includes six 360,000-bbl capacity crude oil storage tanks, each with a working capacity of approximately 340,000 bbl. These tanks are subject to an NSPS that applies to storage vessels for petroleum liquids (40 CFR Part 60 Subpart Kb). The Facility will comply with Subpart Kb by incorporating the option identified in §60.112b(a)(1): A fixed roof in combination with an internal floating roof that floats on the liquid surface. The tanks will feature an internal floating-roof design with a pontoon-style internal deck. The storage tanks may emit VOCs as fugitive emissions. The most effective and feasible control options for the storage tanks are determined in the BACT analysis, attached in Section 5.1, Attachment 1. Fugitive emissions from the tanks are more specifically addressed in Section 5.1.

Marine Vapor Combustion Unit

Vessels will arrive at the Facility with on-board tanks filled with inert gas with oxygen levels below eight percent. The inert gas consists of cleaned exhaust from dedicated on-board inert gas generators (engines burning ultra-low sulfur distillate). Note that the inert gas is added to the tanks as the cargo is discharged – not at the Facility, which is a loading facility.

When the vessel tanks are filled with crude oil, the vapors from the cargo tanks, made up of hydrocarbon and inert gases, is displaced to a MVCU, which will combust the hydrocarbons in the vapors. In order to ensure adequate destruction of hydrocarbons by the MVCU, the vapor stream must consist of at least approximately 20 percent hydrocarbon. Natural gas will be added if needed to the displaced vapors at the MVCU as an “assist gas” to increase the heating value of the vapors, and ensure adequate destruction.

The MVCU is expected to achieve a least 99.8 percent destruction of the hydrocarbons in the delivered vapors. MVCU emissions are more specifically addressed in Section 5.1.

Emergency Diesel Fire Water Pump Engines

Emergency fire water pumps powered by diesel engines will be used in the event that water is needed to fight a fire within the Facility. Each of the engines will be 225 horsepower (hp) or smaller, and, while specific makes and models have not been selected, emission rates were calculated using emission factors for a 225 hp fire water pump engine that is representative of the units that will be installed. All three engines will be fueled with ultra-low sulfur diesel (ULSD). Planned operation of the units will be limited to half an hour a week for readiness testing and one 8-hour test per year, as specified by the National Fire Protection Association’s NFPA 25. Emission rate calculations are detailed in Section 5.1, Attachment 2.

Fugitive Component Leaks

VOC emissions associated with minute vapor leakage from valve seals, pump seals, pressure relief valves, flanges, and similar equipment will occur at the Facility. Emissions from leaks are limited by procedures addressed in the BACT analysis, attached in Section 5.1, Attachment 1. The emission rate calculations for the Facility fugitive component leaks are summarized in Section 5.1, Attachment 2.

Locomotive and Marine Vessel Emissions

Crude oil will be delivered to the Facility by rail for transport by marine vessel. Emissions from locomotives and vessels are not included in the Facility emissions inventory or dispersion

modeling because they are mobile sources powered by off-road engines, and these sources of emissions are specifically exempted from pre-construction permitting.⁷

Odor

Emissions from the boiler units are expected not to cause any significant offensive odors at the Facility or adjacent properties. Odor impacts from natural-gas combustion units are not typically observed, since the methyl mercaptan that gives the gas its odor is destroyed during combustion.

Vessel gases vented to the vapor combustor contain hydrocarbons and reduced sulfur compounds which could contribute to periods of offensive odor if not oxidized in the vapor combustor. The NAAQS for sulfur dioxide (75 ppb) is sufficiently lower than the average detection threshold for sulfur dioxide of 670 – 4,750ppb⁸. Conservative air quality modeling of vapor combustor emissions, included in Section 5.1, demonstrate that the maximum sulfur dioxide concentrations attributable to MVCU emissions do not exceed the odor threshold for sulfur dioxide at any location outside the property boundaries.

Other minor transient odor impacts attributable to diesel-fueled locomotives may occur during operation. These impacts likely will not extend beyond the boundaries of the property and be indiscernible from unrelated industrial and vehicle operations in the vicinity of the Port.

Dust

Fugitive dust emissions during operation are expected to be insignificant because all Facility roads, parking lots, and storage platforms will be concrete or asphalted.

Summary

The projected annual emissions of criteria pollutants from the project units identified in this section are summarized in Table 2.12-1. GHG emissions, discussed in more detail in Section 2.12.4, are included in Table 2.12-1 GHG emissions exceed the PSD threshold of 100,000 tons per year, therefore requiring that the project Facility be designated as a major source for GHGs. Annual emissions of other pollutants relevant to PSD would be emitted at rates below the PSD thresholds, so they are addressed in a minor source permit process.

⁷ See, e.g., WAC 173-400-030(79) (“Secondary emissions do not include any emissions which come directly from a mobile source such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.”); *In re Cardinal FG Company*, EPA Environmental Appeals Board PSD Appeal 04-04 (2005) (holding that Ecology correctly concluded that emissions from a captive on-site locomotive are not attributable to the stationary source); Letter from EPA to Ken Waid (Jan. 8, 1990) stating that “to and fro” vessel emissions are not attributable to a stationary source and that when determining PSD applicability you do not consider those emissions “which result from activities which do not directly serve the purposes of the terminal and are not under the control of the terminal owner or operator.”)

⁸ U.S. EPA Sulfur Dioxide Final Acute Exposure Guideline Levels, May, 2008

Table 2.12-1. Projected Annual Emissions (tons)

	NO _x	CO		SO ₂	PM	VOC	CO ₂ e
Area 300 boilers	0.60	1.97		0.20	0.41	0.27	6,415
Area 600 boilers	5.95	19.47		1.99	4.06	2.70	63,284
MVCU	13.26	5.76		7.02	4.30	8.64	80,191
Components	--	--		--	--	0.82	12
Tanks	--	--		--	--	23.58	261
Firewater pumps	0.01	0.03		0.01	0.00	0.01	14
Total:	19.82	27.24		9.22	8.77	36.02	150,176
PSD threshold ¹	100	100		100	100	100	100,000
PSD SER ²	40	100		40	10	40	75,000
NOC exemption ⁴	2.0	5.0		2.0	0.5	2.0	Does not apply

¹PSD criteria pollutant threshold of 100 tons for 28 source category exception as defined in 40 CFR 52.21.

²PSD Significant emission rates: PSD review required for pollutant emissions from a major source with emissions exceeding the SER

⁴Notice-Of-Construction (NOC) Exemption levels for new or modified stationary sources (WAC 173-400-110 Table 110(5))

2.12.3 Toxic Air Pollutants

The industrial emissions of almost 400 TAPs are regulated under WAC 173-460, and WAC 173-400-110 requires that increases in TAP emissions attributable to the entire project must be reviewed during the preconstruction permitting process. To comply with WAC 173-460, an inventory of TAPs associated with project emission units has been developed. Any TAP expected to have a pre-control emission rate increase as a result of the project that exceeds the *de minimis* level defined for that TAP in WAC 173-460-150 is subject to NSR.

The impact attributable to the emission increase of a given TAP that is subject to the NSR requirements of WAC 173-460 is determined to be insignificant if it can be shown that the total emission rate increase of that TAP, after the application of BACT, is less than the SQER prescribed in WAC 173-460-150. If the expected emission increase of a TAP exceeds the prescribed SQER, a dispersion modeling analysis is required to demonstrate that the ambient impact of the aggregate emission increase of that TAP does not exceed the acceptable source impact level assigned to that TAP in WAC 173-460-150.

In addition to Washington's TAP regulations, under the provisions of Section 112 of the 1990 Clean Air Act Amendments, the EPA is required to regulate emissions of a total of 187 HAPs from stationary sources. EPA does this by specific industry categories to tailor the controls to the major sources of emissions and the HAPs of concern from that industry. The rules promulgated under Section 112 generally specify the maximum achievable control technology (MACT) that must be applied for a given industry category. Consequently, these rules are often called MACT standards.

MACT standards can require facility owners/operators to meet emission limits, install emission control technologies, monitor emissions and/or operating parameters, and use specified work practices. In addition, the standards typically include recordkeeping and reporting provisions. MACT standards are codified in 40 CFR Parts 61 and 63.

There are two types of HAP sources: major and area sources of HAP emissions. Major sources have a potential to emit more than 10 tons of a single HAP, or 25 tons of all HAPs combined. Area sources are facilities that are not a major source.

The Facility's annual potential emissions of all HAPs will not exceed EPA's combined 25 ton per year or single 10 ton per year major source threshold. Therefore, the Facility is categorized as an area source of HAPs, and the MACT standards for area sources of HAP apply to it.

Construction

Temporary emissions of small amounts of TAPs and HAPs are likely from the operation of construction vehicles and equipment during the construction phase. Emissions from mobile sources are regulated under federal standards for mobile sources. Additional site air permits are not required for the temporary deployment of mobile sources on the site, as indicated under WAC 173-400-020.

Operation

The proposed Facility will contain several potential sources of TAPs and HAPs. The rail car Area 600 and Area 300 boilers will combust natural gas to produce steam, and the MVCU will combust both natural gas and the displaced vapors from the vessels. Combustion exhaust contains small quantities of compounds identified in regulations as TAPs and/or HAPs. Similarly, fugitive emissions associated with the transfer and storage of crude oil at the Facility will include TAPs and/or HAPs. The calculated emission rates of TAPs and HAPs are presented in Table 2.12-2. Further details concerning the calculated TAPs emission rates from each unit are available in Section 5.1, Attachment 2.

Table 2.12-2. Facility-wide TAPs/HAPs emissions

Compound	CAS	HAP? ¹	WA TAP Averaging Period	Emission Rate	SQER ²	Model? ³
				lb/avg per	lb/avg per	
Acetaldehyde	75-07-0	Yes	Annual	4.23E-02	71	No
Acrolein	107-02-8	Yes	24-Hour	1.50E-04	0.00789	No
Arsenic	7440-38-2	Yes	Annual	4.31E-01	0.0581	Yes
Benzene	71-43-2	Yes	Annual	1.06E+02	6.62	Yes
Benzo(a)anthracene	56-55-3	No	Annual	3.98E-03	1.74	No
Benzo(a)pyrene	50-32-8	No	Annual	2.60E-03	0.174	No
Benzo(b)fluoranthene	205-99-2	No	Annual	3.89E-03	1.74	No
Benzo(k)fluoranthene	207-08-9	No	Annual	3.89E-03	1.74	No
Beryllium	7440-41-7	Yes	Annual	2.59E-02	0.08	No
1,3-Butadiene	106-99-0	Yes	Annual	2.16E-03	1.13	No
Cadmium	7440-43-9	Yes	Annual	2.37E+00	0.0457	Yes
Carbon monoxide	630-08-0	No	1-Hour	1.19E+01	50.4	No
Chromium, (hexavalent)	18540-29-9	No	Annual	1.21E-01	0.00128	Yes
Chrysene	218-01-9	No	Annual	3.90E-03	17.4	No
Cobalt	7440-48-4	Yes	24-Hour	8.39E-04	0.013	No
Copper	7440-50-8	No	1-Hour	3.57E-04	0.219	No
Cyclohexane	110-82-7	No	24-Hour	5.10E-01	789	No
Dibenzo(a,h)anthracene	53-70-3	No	Annual	2.62E-03	0.16	No
Diesel Engine Particulate	DEP	No	Annual	6.41E+00	0.639	Yes

7,12-Dimethylbenz(a)anthracene	57-97-6	No	Annual	3.45E-02	0.00271	Yes
Ethylbenzene	100-41-4	Yes	Annual	4.53E+01	76.8	No
Fluorene	86-73-7	No	24-Hour	4.73E-05	1.71	No
Formaldehyde	50-00-0	Yes	Annual	2.43E+01	32	No
Hexane	110-54-3	Yes	24-Hour	1.97E+01	92	No
Hydrogen Sulfide	7783-06-4	No	24-Hour	9.45E-03	0.263	No
Indeno(1,2,3-cd)pyrene	193-39-5	No	Annual	3.90E-03	1.74	No
Isopropyl benzene	98-82-8	Yes	24-Hour	1.58E-02	52.6	No
Manganese	7439-96-5	Yes	24-Hour	3.79E-03	0.00526	No
Mercury	7439-97-6	Yes	24-Hour	2.60E-03	0.0118	No
3-Methylchloranthrene	56-49-5	No	Annual	3.88E-03	0.0305	No
Naphthalene	91-20-3	Yes	Annual	1.32E+00	5.64	No
Nitrogen dioxide	10102-44-0	No	1-Hour	8.57E+00	1.03	Yes
Propylene	115-07-1	No	24-Hour	4.18E-04	394	No
Selenium	7782-49-2	Yes	24-Hour	2.40E-04	2.63	No
Sulfur dioxide	7446-09-5	No	1-Hour	4.77E+00	1.45	Yes
Toluene	108-88-3	Yes	24-Hour	4.30E-01	657	No
Vanadium	7440-62-2	No	24-Hour	2.30E-02	0.0263	No
Xylene (-m)	108-38-3	Yes	24-Hour	4.19E-01	29	No
Xylene (-o)	95-47-6	Yes	24-Hour	1.10E-02	29	No
Xylene (-p)	106-42-3	Yes	24-Hour	1.22E-01	29	No

Notes:

¹ TAP: Washington toxic air pollutants listed in WAC 173-460-150; HAP: federal hazardous air pollutants listed in Section 112b of the Clean Air Act.

^{2,3} Small Quantity Emission Rate as defined in WAC 173-460-150 – emission rates. TAPs with project emission rates greater than the SQER require an air quality modeling analysis to demonstrate compliance with the Washington State ASILs.

As indicated in Table 2.12-2, eight TAPs were identified whose emission rates exceed the SQER. Air quality modeling is required to demonstrate that the ambient concentrations of these TAPs are below the associated ASILs. Section 5.1 includes the local air quality modeling analysis that demonstrates that TAPs concentrations are all below the associated ASIL for each of the eight TAPs.

Also shown in Table 2.12-2, the Facility’s annual potential emissions of all HAPs combined does not exceed EPA’s 25 ton per year major source threshold and nor does the Facility’s annual potential emissions of any individual HAP exceed EPA’s 10 ton per year major source threshold. Therefore, the Facility is categorized as an area source of HAPs, and area source MACT standards apply to the proposed emission units as appropriate.

The MACT standards applicable to the project are discussed in detail in Section 5.1.3.1.2.

2.12.4 GHG Emissions

GHGs are those that absorb and emit terrestrial radiation within the thermal infrared range. Although these gases do not pose a direct threat to human health or property by inhalation or contact, the buildup of these gases in the atmosphere may contribute to anthropogenic climate change. On May 13, 2010 the EPA issued a final tailoring rule with the stated intent of establishing a “common sense approach” to addressing GHG emissions from stationary sources,

by “tailoring” the major source applicability thresholds under the prevention of significant deterioration (PSD) and Title V air operating permit programs, and providing a phased implementation for GHG permitting requirements.⁹ The tailoring rule defines GHGs as an aggregate of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Under the second phase of the tailoring rule, which began on July 1, 2011, a new source of GHG emissions with the potential to emit 100,000 tpy CO₂e or more is subject to PSD review for GHGs, even if the source will not increase the emissions of any other PSD pollutant significantly. Because there is no ambient standard or increment for GHGs, the only PSD requirement that applies to GHGs is that BACT must be employed to reduce GHG emissions from the proposed project.

The project has the potential to emit only three of the six gases that comprise the Tailoring Rule definition of GHGs: carbon dioxide, methane, and nitrous oxide. The Tailoring Rule further defines CO₂e as the sum of the mass emissions of the constituent GHG, each multiplied by the appropriate global warming potential factor provided in Table A-1 of the federal mandatory GHG reporting rule (MRR, codified in 40 CFR Part 98). Table 2.12-3 summarizes the calculations and shows that the project has the potential to generate a maximum of approximately 150,176 tons of CO₂e per year. An expanded review of these calculations is included in Section 5.1.

Table 2.12-3. GHG (Composite CO₂e) Emission Rates

Emission Unit	Activity	Emission rate (tpy)
Area 600 boilers	2 units, 8,760 hours/year	63,284
Area 300 boilers	1 unit, 8,760 hours/year	6,415
MVCU	360,000 bbl/day, 365 days/year	80,191
Components	Leaks: methane emissions	12
Tanks	Fugitive emissions of methane	261
Firewater pumps	3 engines, ½ hour per week plus 8 hours per month	14
Total:	--	150,176

⁹ EPA GHG permitting guidance and tailoring rules available at: <http://www.epa.gov/nsr/ghgpermitting.html>

Construction

GHG emission during construction is not subject to PSD review or emission reporting. Emissions will primarily consist of CO₂ release from combustion by diesel- and gasoline-powered vehicles associated with construction. Emissions from vehicle use will be minimized by adherence to a set of best practices including limited idling time.

On-site Operations

The main sources of GHG during operation are the combustion of natural gas at the boiler units and the combustion of natural gas and vessel hydrocarbon vapors in the MVCU. GHG emission calculations for each unit are reviewed in detail in section 5.1, Attachment 2.

Section 2.13 – Carbon Dioxide Mitigation

WAC 463-60-230

Proposal – Carbon dioxide mitigation.

For thermal electric energy facilities, the application shall include a carbon dioxide mitigation plan and information required by Chapter 463-80 WAC.

(Statutory Authority: Chapter 80.50 RCW and RCW 80.50.040. 09-05-067, § 463-60-230, filed 2/13/09, effective 3/16/09.)

Section 2.13 Carbon Dioxide Mitigation

The project is not a thermal electric energy facility as described in RCW 80.70.020. Pursuant to WAC 463-60-115, the Applicant requests a waiver of the carbon dioxide mitigation standards required by WAC 463-80.

Section 2.14 – Greenhouse Gases Emissions Performance Standards

WAC 463-60-232

Proposal – Greenhouse gases emissions performance standards.

For baseload electric generating facilities, the application shall provide information required by, and describe how the requirements of Chapter 463-85 WAC will be met.

(Statutory Authority: Chapter 80.50 RCW and RCW 80.50.040. 09-05-067, § 463-60-232, filed 2/13/09, effective 3/16/09.)

Section 2.14 Greenhouse Gases Emissions Performance Standards

The Facility is not a baseload electric generation facility under RCW 80.80.010(4). Pursuant to WAC 463-60-115, the Applicant requests a waiver of the greenhouse gases emissions performance standards of WAC 463-85.

Note: Greenhouse gas emissions will be addressed as part of the overall assessment of air impacts in section 5 of the site certification application.

Section 2.15 – Construction and Operation Activities

WAC 463-60-235

Proposal – Construction and operation activities.

The application shall: Provide the proposed construction schedule, identify the major milestones, and describe activity levels versus time in terms of craft and noncraft employment; and describe the proposed operational employment levels.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-235, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-235, filed 10/8/81.)

Section 2.15 Construction and Operation Activities

The Applicant will be responsible for the construction of Project. Construction of the project will occur in several general stages including the following main activities:

- Construction of temporary access roads, construction stormwater BMPs and temporary laydown areas.
- Placement of temporary construction offices
- Site grading and installation of subsurface ground improvements
- Installation or movement of underground utilities
- Construction of above ground utilities
- Excavation for, and pouring of unloading track trenches, and other subsurface basins
- Construction of the storage area berm, including placement of the HDPE liner
- Installation of rail ballast, rail ties, tracks and other rail infrastructure
- Construction of building, tank and equipment foundations
- Construction of field erected buildings and tanks
- Construction of above and below ground pipelines
- Removal of portions of berths 13 and 14, reinforcement of existing piling and construction of new walkways
- Installation of piping, mechanical, electrical, fire protection and other equipment necessary for the Facility
- Testing and commissioning.

2.15.1 Construction Schedule and Milestones

Figure 2.15-1 identifies the major schedule milestones, engineering and procurement, construction and start-up. The construction schedule is based on receipt of a Site Certification Agreement by November 2014 and is subject to change. The construction schedule will be revised to reflect the actual date of approval of the Site Certification Agreement, and provided to EFSEC at least 60 days prior to the beginning of construction.

2.15.2 Construction Workforce

During the construction period approximately 250 construction workers will be employed at the site. Levels will vary over the construction period with a maximum daily workforce of 125 construction workers. Table 2.15-1 summarizes the composition of construction workforce by trade. Most of the construction workforce is anticipated to be hired from the Vancouver/Portland metropolitan area, and its adjoining cities and counties. Workforce may also be sourced from the broader Seattle/Tacoma area. Workers from the Portland/Vancouver area would be expected to commute daily to the construction site; commuters from further afield would be expected to commute on a weekly basis, staying in RV parks and motels near the Facility site during the workweek.

Table 2.15-1. Construction Workforce by Trade

Trade	Number of Construction Staff
Carpenters	20
Concrete	15

Trade	Number of Construction Staff
Electrical	35
Iron Workers	32
Laborers	53
Mechanical	50
Operating Engineers	25
Tank Erectors	20
Total for TSPT	250

2.15.3 Operation

When operational, employee levels will vary as a function of project capacity ramping up to satisfy market demand. At full operation there will be up to 110 permanent full time staff.

Table 2.15-2 provides a breakdown of staff by trade. The Facility will be staffed and operated 24 hours per day, 7 days per week, and 365 days per year. In addition to the staff noted below, two Tesoro Refining & Marketing Company LLC employees will conduct loading operations at the Marine Terminal, and approximately seven to eight longshoremen will be utilized during mooring activities at the dock.

Temporary workforce may be added during major Facility maintenance activities. Regular maintenance of major equipment purchased from suppliers (e.g., boiler water treatment systems) may be conducted under contract.

Table 2.15-2. Operations Staff

Trade	Number of Operations Staff
Unloaders	52
Switchman	12
Locomotive Engineers	20
Mechanics	8
Administrative & Logistics	5
Safety	3
Inspectors	8
Supervisory and Management	12
Total for TSVEDT	120

Section 2.16 – Construction Management

WAC 463-60-245

Proposal – Construction management.

The application shall describe the organizational structure including the management of project quality and environmental functions.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-245, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-245, filed 10/8/81.)

Section 2.16 Construction Management

2.16.1 Construction Management Organization

The Applicant has hired industry professional contractors to complete the design of the project and will contract with (one or more) engineering, procurement, and construction (EPC) contractors, or construction management firm. Those parties will be responsible for the design, procurement, construction, and startup of the Facility. The main EPC contractor or construction manager will be responsible for managing subcontractors.

The EPC contractor will employ a lead project manager, along with a project engineer, a site manager supported by a field engineering team, quality assurance and quality control (QA/QC) specialists, environmental specialists, and a site safety officer. The EPC contractor will be required to implement a safety plan, a QA/QC plan, an environmental protection plan, an SWPP plan, and an SPCC plan.

2.16.2 Safety Program

In addition, before any on-site construction work begins, the EPC contractor will be required to develop a construction safety plan that applies to the employees of the EPC contractor and all subcontractors working at the project site. The construction safety plan will ensure compliance with all applicable laws, ordinances, regulations, and standards concerning health and safety. The EPC contractor's safety manager will have the authority to issue stop work orders when health and safety procedures are violated by the employees of either the EPC contractor or a subcontractor. Upon identification of any health and safety issue, the safety manager will work with the responsible site managers and employees to correct the issue. The construction safety plan will include, but will not be limited to, the following areas:

- Description of the company safety program
- Fire protection and life safety
- Hazard communications
- Hearing conservation
- High temperature work areas
- Job hazard analysis
- Material handling
- Personal protective equipment (PPE) requirements
- Respiratory protection
- Safety administrative controls
- Tools, machinery, and equipment safety
- Compressed gases
- Electrical arc protection work practices
- Confined space entry
- Control of hazardous materials
- Crane/hoist operations and safety
- Electrical appliances
- Electrical safety
- Excavation, trenching, and shoring
- Fall protection

During operations, the Applicant will implement a site- and project-specific operations safety program, addressing all applicable laws, ordinances, regulations, and standards concerning operations health and safety. The program will be documented in the Rail Operating Safety and Maintenance Plan and the Facility Construction and Operations Safety Plan which includes, but is not limited to, the following areas:

- Description of the company safety program
- Fire protection and life safety
- Hazard communications
- Hearing conservation
- High temperature work areas
- Job hazard analysis
- Rail operations
- Material handling
- Personal protective equipment (PPE) requirements
- Respiratory protection
- Safety administrative controls
- Tools, machinery and equipment safety
- Compressed gases
- Electrical arc protection work practices
- Confined space entry
- Control of hazardous materials
- Crane/hoist operations and safety
- Electrical appliances
- Electrical safety
- Excavation, trenching and shoring
- Fall protection

2.16.3 Environmental Protection Program

During construction, the Applicant will require that its EPC contractor and all subcontractors implement an environmental protection program to ensure that construction activities comply with the conditions, limits, and specifications required by the site certification agreement and any other applicable federal permits and regulations. Copies of all applicable permits and approvals will be kept on site. The EPC project manager, and all contractor and subcontractor employees, will be required to read, follow, and be responsible for all required compliance activities and the prompt correction of deficiencies. The environmental protection program will include, but not be limited to, the following:

- Avoidance of sensitive areas by construction activities
- Waste handling and storage
- Stormwater management
- Spill prevention and control
- Any additional requirements of the site certification agreement and other issued permits and approvals and applicable regulations

2.16.4 Training Programs

During construction, the EPC contractor will be required to provide a training program to ensure that any contractor or subcontractor employees entering the construction area are instructed on applicable health and safety requirements and protocols. The training will include, but not be limited to, the following areas:

- Drug and alcohol free workplace policy
- Personal health and safety
- Fall safety
- Confined space
- Excavation
- Crane and rigging
- Equipment and operations safety
- Fire prevention
- Electrical safety
- Emergency response
- Hazards communication
- Stormwater pollution prevention
- Spill prevention, control, and countermeasures

Similarly, extensive training of operations employees will begin prior to their beginning work at the project facilities. All employees will receive training regarding operations-related health and safety, hazards communication, emergency response, stormwater pollution prevention, and spill prevention, control, and countermeasures. Task-specific training will be provided to ensure project facilities are operated and maintained in accordance with industry standards and all applicable permits, approvals, and regulations.

2.16.5 Quality Control Systems and Record Keeping

A QA/QC program will be implemented during all phases of the project to ensure that the engineering, procurement, construction, and startup of the Facility are completed as specified. The elements of the QA/QC program will include:

- A formal QA/QC program that ensures equipment suppliers deliver their components as designed and specified and that the installation of equipment is completed as specified.
- A procedures manual describing activities at the Facility from the initiation of final design through project startup.
- A description by the EPC contractor of the activities and responsibilities within the contractor's organization and the measures taken to assure quality work, including design control, configuration management, and drawing control.
- A review by independent QA/QC personnel of all documentation and their witness of field activities as an organization parallel to the construction organization to assure compliance with the specifications.
- Field inspectors' acceptance for the installation, alignment, and commissioning of all major equipment.

Typical QA/QC checks include:

- Factory QA/QC
 - Inspection of major equipment at manufacturer’s facilities
 - Review and inspection of third-party test verification reports
 - Review and inspection of manufacturer’s QA/QC procedures
 - Manufacturing drawing review and verification
 - Visual inspection
 - Witness and/or review of testing
 - Verification of welding procedure specifications compliance
 - Inspection of flange interface flatness measurements, finishing, and protection
 - Witness or review of turbine run-in load testing
 - Inspection of paint finishing and protection
 - Shipment packaging and handling, tracking, and identification
 - Pre-commissioning field testing and verification
- Field Inspection QA/QC
 - Reviewing equipment and material delivery acceptance inspection procedures
 - Inspection of all critical interfaces
 - Verification of all mechanical assembly work including erection of major components
 - Verification of field wiring and tagging
 - Pre-commissioning field testing and verification
- Concrete/Structural
 - Inspection of forms, structural steel, and rebar prior to backfilling and prior to casting
 - Field engineer’s witness of concrete pouring
 - Inspection of concrete testing during pour (slump) and verification of break test results
 - Inspection of field welds
 - Tank Construction
 - Internal monitoring of tank shape
 - Hydrostatic testing
- Electrical System Installation
 - Inspection of terminations and termination hardware
 - Witness and/or review of polarity, cable marking, and phase rotation tests
 - Witness and/or review of grounding system resistance measurements
 - Inspection of all lock-out/tag-out locations and energizing sequences and plan
 - Inspection of painting/tagging/wiring/preparation for shipment
 - Verification of field wiring and tagging

The Applicant will audit the EPC contractor periodically, including reviews of documentation and surveillances of field activities, to ensure compliance with the specifications and with the requirements of the QA/QC plan. Checks may include:

- Verification of drawings
- Verification of materials
- Verify compliance with engineering specifications
- Verify compliance with environmental permits and regulations
- Verify compliance with health and safety program

Records will be maintained at the on-site administration building in accordance with the Applicant's records management program and any additional record-keeping requirements of project permits and approvals.

Section 2.17 – Construction Methodology

WAC 463-60-255

Proposal – Construction methodology.

The application shall describe in detail the construction procedures, including major equipment, proposed for any construction activity within watercourses, wetlands and other sensitive areas.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-255, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-255, filed 10/8/81.)

Section 2.17 Construction Methodology

2.17.1 Construction Summary

As noted in section 2.3.2 Site Arrangement above, the Facility will be constructed primarily on previously developed areas located at the port. The site is relatively flat and without natural vegetation or water features, resulting in limited preconstruction grading activities and modification or removal of vegetation. The only construction element that will include work within a sensitive area is the proposed modifications to berths 13 and 14 and other associated work within the shoreline area for the Marine Terminal (Area 400). For completeness this section addresses all construction elements.

Before any on-site ground disturbance, stormwater pollution prevention measures will be implemented in accordance with the project's SWPPP. Measures will include, but will not be limited to, installing stabilized construction entrances, wheel washes, and temporary stormwater collection and treatment facilities (hay bales, silt fences, other temporary measures), and temporary stormwater ponds.

Construction areas will be secured with temporary or permanent fences to control access to the construction sites. Primary construction access is expected to be established off the existing Gateway overpass; secondary access will be established at the west entrance to Terminal 5 and at Parcel 1A.

Construction on portions of Terminal 5 will involve impacts to areas of known residually impacted soils and protective caps that have been the subject of past remediation and containment activities. Work within these areas will comply with the restrictive covenants and consent decrees in place and the contaminated material management plan that will be developed for the project.

Prior to the construction of foundations and above-ground facilities, existing above-ground and underground utilities will be removed and if necessary reinstalled in a different location. The Applicant will coordinate with the owners and operators of these utilities before they are disconnected or moved. With the exception of rail loop adjustments, dock modifications and utility movements, no existing structures will be moved or removed from the site.

Construction laydown areas will be established for temporary construction trailers, storage of construction equipment and materials, and construction employee parking. The laydown areas will be on areas adjacent to the project site. Final configuration will be determined based on construction needs. In addition, areas adjacent to the proposed piping system alignment will be used to stage pipe prior to and during the process of constructing the piping system. Figure 2.17-1 illustrates the anticipated location of temporary construction boundaries and temporary laydown areas with respect to the Facility site boundary.

Conventional construction equipment – including bulldozers, front end loaders, trucks, tractor scrapers and graders – will be used to final grade the site. As described in further detail in the sections that follow, foundations will be constructed, and equipment and project facilities will be installed. Field toilets and temporary holding tanks will be installed for construction personnel. During construction, potable water will be provided in containers until permanent potable water service is established.

Cleanup of debris, final site stabilization and landscaping will complete construction activities.

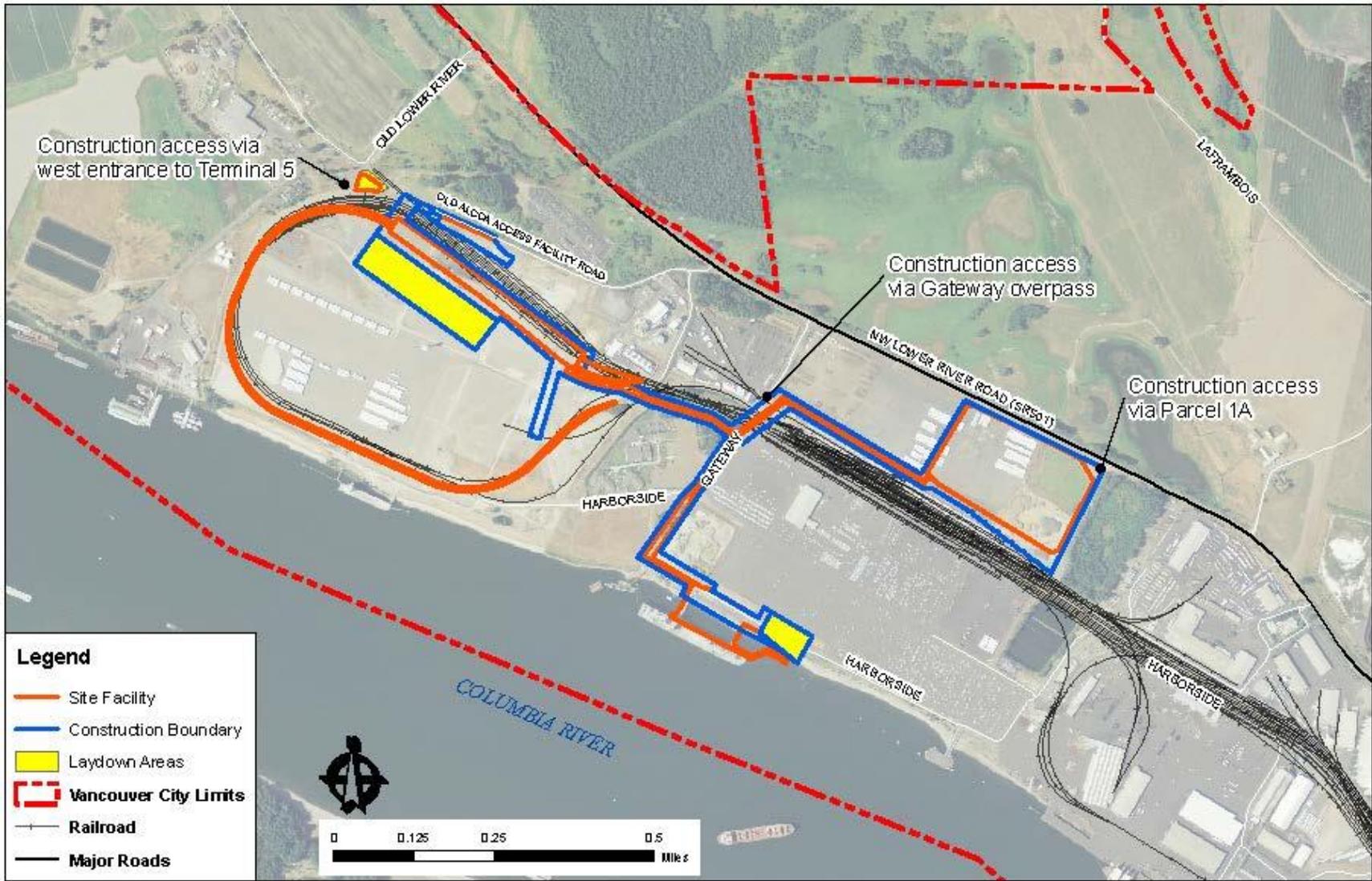


Figure 2.17-1. Temporary Construction Boundary and Laydown Areas (Revised)

2.17.2 Site Preparation

During site preparation, the construction contractor will install stormwater pollution prevention measures and the permanent stormwater drainage system. This system is described in detail in the Preliminary SWPPP, Appendix C to this application. A Certified Erosion and Sediment Control Lead (CESCL) will be responsible for ensuring that stormwater pollution prevention measures are implemented and maintained according to the BMPs identified in the project SWPPP and selected in accordance with the Stormwater Manual.

2.17.3 Foundations

Foundations, ground improvements, buildings, storage tanks, and piping systems will be designed to the applicable seismic code, and will take into consideration site-specific soil stability, as described in more detail in section 3.1.

The type of foundation chosen for the offloading building will depend on the results of the detailed site geotechnical investigation conducted prior to final site engineering and construction. It is anticipated that the foundation will consist of either drilled piers, with columns spaced 20 to 25 feet on center, or spread footings approximately 7 feet by 7 feet, placed 20 to 25 feet apart. The locations for piping trenches and pump basins will be excavated and the concrete for the trenches and pump basins poured. The storage tanks are anticipated to be constructed on a piling-supported ring wall foundation.

2.17.4 Storage Area

Following site grading and subsurface preparation, AST support piling will be installed and tank foundations will be poured. Sand and gravel material will be laid throughout the storage tank area, and the surrounding berm constructed. The berm around the storage tank area will be constructed from materials excavated from the loading facility area during the construction of the piping trench. The impervious membrane liner will then be placed covering the berm and storage area, and will either be tied into the AST foundations or will cover the entire containment area.

The storage tanks will be constructed on site from pre-fabricated sections of steel plate. A 100- to 150-ton crane will be brought to the site to move the tank sections into place. During the construction process, the various elements of the storage tank assembly will be tested according to API standards as indicated in section 2.10.3.2: Piping Installation.

Piping will be delivered to the site in prefabricated lengths. Pipe supports will be constructed on pile or stone column-supported concrete foundation designed to the applicable seismic code. Piping will be installed and field welded. Field welds will be inspected per applicable standards.

2.17.5 Rail Improvements

As noted above in section 2.3.3.2, two additional, approximately 8,000-foot-long rail loops will be constructed to accommodate unit trains. Construction of these rail loops will follow typical industry standards. The track alignment and construction limits will be established by field survey. Minor grading of the rail alignment will consider the existing relatively flat ground level at Terminal 5. Soils will be compacted in consideration of subsurface conditions to ensure ground stability. Approximately 12 inches of finely graded compacted granular material (sub-ballast) will be placed as necessary.

After the sub-ballast has been placed, specialized construction equipment will be used to construct the track. The track will consist of railroad ballast (rock), 115-pound hardened steel continuously welded rails, mounted on either 8-foot-6-inch or 8-foot-3-inch crossties, and other miscellaneous materials. Crossties will be concrete for the most part, except at crossings where timber will be used. A stockpile for the track material will be located at one of the proposed laydown areas. The material will be distributed by truck to the final location and the rails will be spiked or clipped to the proper gauge on the crossties. Railroad ballast will be dumped using construction equipment mounted on rails. A specialized piece of construction equipment, called a tamper, will be used to raise the track through the ballast, and the ballast will be compacted under the crossties. The track surface will be smoothed to a tolerance of 1/16th of an inch. The ballast will then be shaped to form a typical uniform ballast section.

2.17.6 Utilities

Natural Gas

Natural gas service will be obtained from Northwest Natural Gas. Existing 2 inch service lines are in place for service to the Area 300 Boiler Building and the Area 600 West Boiler Building. The existing service line to the Jail Work Center will be extended further south towards berths 13 and 14 to provide assist gas for the MVCU. A meter will be placed on the Facility-side of each of these connections.

Water

The City's existing water distribution facilities are adjacent to or located on the site. The Facility's water service will be connected to the City's existing distribution network in accordance with the City's water design and construction requirements. Necessary water metering and cross-connection control will be installed at each of the connection locations between the on-site water facilities and the public water distribution system. Multiple water service connections will be constructed because of the multiple discontinuous areas that are part of the project.

Electrical

The Facility will obtain electrical service from Clark Public Utilities.

2.17.7 Dock Improvements

Dock improvements will include in-water and overwater construction.

Construction Equipment

In-water construction will be completed with typical waterborne construction equipment. The contractor will likely conduct most of the work from construction barges. The anticipated equipment includes, but is not limited to:

- Crane and material barge(s) (typical dimensions of 150 feet x 60 feet)
- Cranes
- Work skiff(s)
- Tug(s)
- Impact pile driver (anticipated size of 165,000 to 212,000 ft-lbs)
- Vibratory pile driver

- Concrete pumps or buckets
- Air compressors and generators
- Typical hand held equipment
 - Concrete saws
 - Welding and cutting torches
 - Saws, chainsaws and drilling equipment
 - Underwater chainsaw
- Dump truck or wheeled excavator (for material removal on dock)
- Emergency response and safety equipment

Mobilization

The contractor will mobilize labor and equipment to the site. Laydown areas for materials and equipment will be located landward of the OHWM.

Demolition

In-water and overwater demolition will consist of removal of the existing breasting dolphin and associated walkways and removal of the existing deck and pile caps from those areas of the structure requiring seismic work. Demolition will generally proceed by removing existing concrete caps, and then removing the associated piles for each structure. Piles will be removed by vibratory extraction or by pulling them directly with a crane mounted on a barge. If a pile is unable to be extracted with the above methods it will be cut off consistent with agency-approved BMPs. Any voids left in the river bottom following pile removal are expected to collapse and fill in rapidly due to the sandy/silty nature of the substrates at the site and natural sediment transport activities in the river. The removed piles will be stored temporarily on a barge before being sent to a recycling center. All pile removal activities below the OHWM will be conducted within the published in-water work window. Demolition may be conducted using land- and/or barge-based equipment.

Pile Strengthening

Prior to strengthening, the inside of the piles will be inspected for substrate that must be removed, if necessary. The piles were installed with partially closed ends and significant substrate is not anticipated to be present. The end of the pile will be opened with a drill to allow installation of the ground anchor. The ground anchor will likely consist of a steel threaded rod that will be inserted into a hole drilled into the substrate and secured with grout. A new steel pile will then be placed inside the existing pile and concrete grout pumped into the piles to complete the pile work. This may be conducted using land- and/or barge-based equipment.

Overwater Construction

New concrete pile caps will be formed using water-tight forms. The superstructure will be constructed with steel framing with a steel grid deck and a poured in place concrete topping slab. Walkways and trusses will be manufactured off site and brought to the site for installation. Temporary piles (up to 40) may be used for the concrete formwork. Temporary piles will be 18- to 24-inch-diameter open-ended steel pipe or H-piles and will be installed with a vibratory hammer.

Other overwater portions of the project will include installation of associated on deck infrastructure, such as the hanging fendering system, bollards, handrails, etc.

Overwater construction may be conducted using land- and/or barge-based equipment.

Overwater activities would be conducted according to the BMPs established for the project, which will minimize any potential for impacts to water quality such as inadvertent releases or release of construction debris into the waters at the site. Overwater construction would not be limited to the in-water work window.

Upland Access Trestle Improvements

The project will install ground improvements at the upland end of the access trestle and along the shoreline. A series of drilled shafts will be installed at the Berth 13 Trestle abutment. Ground improvements, if required, will consist of vibro-compaction, stone columns or other similar method that results in the establishment of an area of denser soils through compaction and the placement of additional materials. 6 24-inch steel pipe piles will also support the access trestle. Pipe pile installation will require use on an impact pile driver. This work would not be limited to the in-water work window.

2.17.8 Commissioning

During commissioning all systems and components, all systems and components of the Facility will be checked, inspected and tested to verify that every operational component of the Facility is functioning properly.

Hydrostatic Testing

Prior to commissioning the project, the piping systems and storage tanks will be hydrostatically tested to ensure they are free of leaks in accordance with industry standards. Hydrostatic testing water will be obtained from the City or Port municipal supply. The piping systems will be filled with water and then pressurized to check for leaks. Water used to test the piping systems will then be pumped to the first storage tank, which will be filled with additional water and then pressurized. Once the testing process for the first tank has been completed, the water will be drained into the next storage tank, and so forth until all of the tanks have been tested. At the completion of the testing process, the hydrostatic test water will be discharged to the stormwater system. Nothing will be added to the testing water. Upon the completion of testing, the water will be analyzed and treated as necessary before its discharge in compliance with wastewater permits issued by EFSEC. Leaks identified during the testing process will be repaired before final commissioning.

2.17.9 Project Construction Cleanup

During this final stage all temporary construction features, equipment and excess materials will be removed. Some temporary stormwater BMPs may remain on site until the site is fully stabilized.

Section 2.18 – Protection from Natural Hazards

WAC 463-60-265

Proposal – Protection from natural hazards.

The application shall describe the means to be employed for protection of the facility from earthquakes, volcanic eruption, flood, tsunami, storms, avalanche or landslides, and other major natural disruptive occurrences.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-265, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1). 92-09-013, § 463-42-265, filed 4/2/92, effective 5/3/92. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-265, filed 10/8/81. Formerly WAC 463-42-290.)

Section 2.18 Protection from Natural Hazards

The following sections address the means to be employed to protect the Facility from natural hazards that could occur on or surrounding the Facility. Existing conditions, potential impacts, and mitigation measures, where appropriate, are discussed below.

2.18.1 Earthquake Hazard

Earthquake-related damage could occur from surface fault rupture, ground motion, and liquefaction and lateral spreading. The project site is located in a region where geologic evidence indicates that significant earthquakes can occur from three sources of seismic energy (Cascadia Subduction Zone [CSZ], intraplate, and crustal earthquakes). Additional details regarding earthquakes and seismicity are provided in section 3.1.3.

2.18.1.1 Surface Fault Rupture

Geologic mapping completed in the vicinity of the project site has not identified evidence of historical or geologically recent surface rupture crossing the site. Potentially active faults have not been mapped or inferred within the site boundaries (Personius et al. 2003). Surface rupture is unlikely to occur at the site.

2.18.1.2 Ground Motion

Ground motion is shaking that occurs during an earthquake set in motion from a passing seismic wave. The project is located in an area that has the potential for strong earthquake ground motion. The potential ground motion during an earthquake event is generally represented by horizontal peak ground motion acceleration (PGA) and is expressed in gravity units (g). The expected earthquake return interval is generally expressed as a probability of exceedance during a given time period or design life. The U.S. Geological Survey (USGS) publishes probabilistic seismic hazard data for the relative contribution of different magnitude-distance combinations for a given location. For an estimated seismic shear wave velocity of 760 meters per second, a PGA of 0.2 g was estimated for a 475-year return period earthquake (10 percent chance of not being exceeded in 50 years), and a PGA of 0.42 g was estimated for a 2,475-year return period earthquake (2 percent probability of exceedance in 50 years), except where subject to deterministic limitations (Leyendecker et al. 2000).

2.18.1.3 Liquefaction and Lateral Spreading

Liquefaction occurs when saturated, loose to medium dense sand, or soft to medium stiff, low-plasticity silt are subject to ground shaking during an earthquake. The ground shaking can result in the rearrangement of the soil particles, which leads to a rise in the pore water pressure within the susceptible soils. If the pore water pressure rises to a level that approaches the total weight of the overlying soil column, the soils begin to behave and deform as a viscous liquid. As soil strength is reduced in the liquefiable layers, there is an increased risk of settlement and the loss of some bearing capacity for both shallow and deep foundations. Unsaturated soils do not liquefy, but may settle during an earthquake (Mabey et al. 1993). Structures can be adversely affected by liquefaction-induced settlement and reduced bearing capacity. The site has been identified as having moderate to high liquefaction susceptible soils (Palmer et al. 2004).

Lateral spreading occurs as blocks of soil moves horizontally toward unsupported banks such as a river or stream channels in response to earthquake ground motion and liquefaction in a

subsurface layer. Ground displacement generally occurs on slopes of less than 3 degrees (Bartlett and Youd 1992). Lateral spreading can have adverse impacts on building foundations, roadways, pipelines, and other utilities built on or across the failure (Youd 1993). Lateral spreading could potentially occur along the banks of the Columbia River. Lateral spreading of the riverbank at the dock during a seismic event would induce large lateral forces on the in-water piles for the trestles and/or dock.

2.18.1.4 Mitigation Measures for Earthquake Hazards

All structures and pipelines constructed for the Facility will be designed and built in accordance with the applicable design provisions and seismic requirements of the 2012 International Building Code, the American Society of Civil Engineers 7-10 standard (Minimum Design Loads for Buildings and Other Structures), American Concrete Institute 318-11 standard (Building Code Requirements for Structural Concrete), American Institute of Steel Construction Manual section 360-10 (Specifications for Structural Steel Buildings) and Seismic Design Manual 2nd Ed., and the American Forest & Paper Association 2008 Special Design Provisions for Wind and Seismic.

Tables 2.18-1 and 2.18-2 list the seismic design criteria for the Facility.

Table 2.18-1. 2012 IBC Seismic Design Criteria Storage (Area 300)

Parameter	Value	2012 IBC/ASCE 7-10 Reference
0.2 Second Spectral Acceleration, S_s	0.94	ASCE 7-10 Figure 22-1
1.0 Second Spectral Acceleration, S_1	0.41	ASCE 7-10 Figure 22-2
MCE_G Peak Ground Acceleration, PGA (Site Class B)	0.41	ASCE 7-10 Figure 22-7
Soil Profile Site Class	N/A*	ASCE 7-10 Section 20.3.1 and 21.3*
0.2 Second MCE_R Spectral Acceleration, S_{Ms}	1.04	Site Specific Ground Motion, ASCE 7-10 Ch. 21 *
1.0 Second MCE_R Spectral Acceleration, S_{M1}	0.8	Site Specific Ground Motion, ASCE 7-10 Ch. 21 *
MCE_G Peak Ground Acceleration, PGA	0.37	Site Specific Ground Motion, ASCE 7-10 Ch. 21 *
0.2 Second Design Spectral Acceleration, S_{Ds}	0.69	2012 IBC Equation 16-39
1.0 Second Design Spectral Acceleration, S_{D1}	0.53	2012 IBC Equation 16-40
Seismic Design Category	D	2012 IBC Table 11.6-1 (& -2)

* A liquefaction hazard was identified for the Storage area (Area 300). In accordance with ASCE 7-10 Section 11.4.7 and 20.3, a site-specific ground motion analysis was completed for seismic design at the Storage area to develop the criteria listed above.

**Table 2.18-2. 2012 IBC Seismic Design Criteria
Unloading and Office (Areas 200 and 600)**

Parameter	Value	2012 IBC / ASCE 7-10 Reference
0.2-Second Spectral Acceleration, S_s	0.94	ASCE 7-10 Figure 22-1
1.0-Second Spectral Acceleration, S_1	0.41	ASCE 7-10 Figure 22-2
MCE_G Peak Ground Acceleration, PGA (Site Class B)	0.41	ASCE 7-10 Figure 22-7
Soil Profile Site Class	E*	ASCE 7-10 Section 20.3.1*
Site Coefficient, F_a	0.97	2012 IBC Table 1613.3.3(1)
Site Coefficient, F_v	2.40	2012 IBC Table 1613.3.3(2)
Site Coefficient, F_{PGA}	0.9	ASCE 7-10 Table 11.8-1
0.2 Second MCE_R Spectral Acceleration, S_{Ms}	0.91	2012 IBC Equation 11.4-1
1.0 Second MCE_R Spectral Acceleration, S_{M1}	0.98	2012 IBC Equation 11.4-2
MCE_G Peak Ground Acceleration, PGA	0.37	2012 IBC Equation 11.8-1
0.2 Second Design Spectral Acceleration, S_{Ds}	0.61	2012 IBC Equation 11.4-3
1.0 Second Design Spectral Acceleration, S_{D1}	0.66	2012 IBC Equation 11.4-4
Seismic Design Category	D	2012 IBC Table 11.6-1 (& -2)

* A liquefaction hazard was identified for the Unloading and Office area (Areas 200 and 600). Based on ASCE 7-10 Section 20.3.1, Site Class E was used to develop seismic design criteria for the structures in Areas 200 and 600 assuming the fundamental period of the structures in Areas 200 and 600 is less than 0.5 second.

Final analysis of the seismic conditions and determination of the building foundation designs will be completed to address seismic conditions found at the site prior to construction. Ground improvement methods and foundations designs will be selected to meet the criteria identified in Tables 2.18-1 and 2.18-2. Ground motion mitigation includes adhering to local building codes and standard foundation design for the proposed Facility and associated buildings and pipelines. The proposed Facility will comply with the state building code provisions for seismic hazards applicable to the proposed location and the site conditions disclosed by the geotechnical investigation.

As confirmed by the site-specific geotechnical analysis presented in Appendix L, liquefaction mitigation solutions for the risk of liquefaction may include improving the condition of soils beneath the site to reduce the risk of liquefaction during an earthquake or the use of deep foundations to provide foundation support below the liquefiable soils. Ground improvement methods, such as stone columns, jet grouting, or deep soils mixing, could be designed to reduce the seismic lateral load on the dock foundations and improve seismic slope stability. Ground improvement methods and/or the use of deep foundations, such as driven piles or drilled shafts, could be designed to reduce the risk of seismic settlement impacting the proposed structures.

Specific mitigation measures will be identified based on the results of the project-specific geotechnical investigation and Facility design criteria.

2.18.2 Volcanic Eruption

Volcanoes in the region pose a variety of eruptive hazards. Volcanoes of the Cascade Mountains are found from northern California to British Columbia. Mount St. Helens and Mount Hood are located within 50 miles of the project, located to the northeast and southeast of the project site, respectively. The Boring Lava Field volcanoes resulted from a smaller series of eruptions and are within approximately 25 miles southeast of the project. The Boring Lava Field volcanoes are low, broad lava shield volcanoes and all are considered extinct.

Mount St. Helens is capable of producing eruptions of ash, lava flows, pyroclastic flows, and lahars (Wolfe and Pierson 1995). However, the Facility is upstream of drainages that extend from the flank of Mount St. Helens and would not be subject to pyroclastic flows or lahars. The USGS estimates that there is between a 0.01 and 0.02 percent annual probability that 4 inches or more of ash would be deposited at the site from eruptions throughout the Cascade Range, with the highest probability resulting from Mount St. Helens (Wolfe and Pierson 1995).

Mount Hood has produced lava and pyroclastic flows, lahars, and debris avalanches (Scott et al. 1997). A future Mount Hood eruption could generate a lahar that would enter the Columbia River 15 miles upstream from the project area at the mouth of the Sandy River. A large lahar entering the Columbia River could produce localized flooding and sediment deposition at the mouth of the Sandy River.

Based on the distance and activity level of nearby volcanoes to the project site, there is a low potential for damaging volcanic processes to reach the project, and these events would be considered extremely rare.

2.18.2.1 Mitigation of Volcanic Eruption

Volcanic events can typically be anticipated through monitoring of earthquakes and other data from the USGS volcano monitoring network. Should an eruption occur and pose a risk to the Facility the operations will be shut down until conditions allow for safe operation.

2.18.3 Flooding

The 100-year floodplain and floodway of the Columbia River are located at 30 feet (NAVD 88) and extend generally to the top of the bank along berths 13 and 14 (FEMA Map 53011C0363D). In addition, there is an isolated floodplain located on Parcel 1A as shown on FEMA Map 53011C0364D. The port filled this area as authorized by City permit GRD2012-00025.

The 100-year floodplain represents the area subject to flooding by a flood with a 1 percent chance of being equaled or exceeded in any given year. Hazards from flooding include an increase in river elevation and current and the amount of debris in the river. During a flood the river levels will rise and can inundate, damage or sweep away buildings or equipment, result in debris accumulation, and present hazards to river navigation.

Facility elements that are located in the Floodplain include berths 13 and 14 and the control room, e-house and motor control center buildings in Area 400.

The project is located within the inundation area of the 500-year flood event. Floodwaters are anticipated to inundate the facilities with approximately 1-foot of water during the 500-year event. Facility design has taken this potential flooding into consideration. The containment berm around the product storage tanks provides protection against inundation. The below grade trenches will be water-tight eliminating inundation concerns during the 100-year flood, or from

seasonal shallow groundwater. The unloading facility is located within the inundation area of the 500-year flood plain. Flood waters inundating the unloading facility would fill the below grade trenches and rail drip pans.

It is not anticipated that any fill will be placed in the 100-year flood fringe or floodway.

2.18.3.1 Mitigation for Flooding

The Facility will be designed to comply with the City's Frequently Flooded Areas provisions of the Shoreline Management Program. These provisions require that buildings and structures located in the floodplain be elevated to at least one foot above the flood elevation or be floodproofed, be anchored to prevent floatation, collapse or lateral movement and incorporate other design elements to insure safety during a flood event. Compliance with these provisions will be determined during the issuance of construction permits anticipated by EFSEC.

In order to prevent the contamination of flood water, operating procedures will require that any crude oil spill including minor leaks and drips be contained and affected surfaces cleaned promptly limiting the amount of any residue that could come in contact with flood waters inundating the rail drip pans, containment piping, and below grade trenches. In the event of flood events exceeding the 100-year or 500-year flood stages, the Applicant will monitor the rate of flood water rise and suspend threatened Facility operations prior to the flooding occurring.

Dock operations will comply with the USCG- and Ecology-approved Terminal Operating Limits as published in the Terminal Operations Manual.

2.18.4 Tsunami

Tsunamis are large damaging waves generated in oceanic areas due to earthquakes. The project site is approximately 95 miles up the Columbia River from the Pacific Coast and is at an elevation of approximately 25 to 35 feet (North American Vertical Datum [NGVD]). Based on the distance from the coast to the site and the elevation of the project site, tsunamis are not considered a potential hazard, and tsunami inundation is not a concern for the project. No mitigation measures are considered necessary for tsunami hazards.

Seiches are earthquake-generated waves that can occur in inland bodies of water, including rivers. The site is adjacent to the Columbia River. After the 1964 Alaska earthquake, a very minor (less than 1 foot) seiche was reported in the upper (non-free flowing) section of the Columbia River system from McNary Reservoir (McNary Dam) to Franklin D. Roosevelt Lake (Grand Coulee Dam) (McGarr and Vorhis 1965). No historic seiches are known from the lower, free-flowing Columbia River. The likelihood that seiches could affect the project is very low. No mitigation measures are considered necessary for seiche hazards.

2.18.5 Storms

Washington State is vulnerable to severe weather events, primarily from storm systems moving into the State from the Pacific Ocean. Severe storms are generally considered to be an atmospheric disturbance with sustained winds of over 40 mile per hours and or significant precipitation events. The County has been subject to infrequent but severe weather events including the Columbus Day Windstorm in October 1962, with recorded wind speeds of up to 92 miles per hour in Vancouver. Tornadoes occur very infrequently but have occurred in Vancouver including a Category F-3 event in April 1972 and an EF-1 event in January of 2008

that touched down NE of the project site near Vancouver Lake. Other severe weather events include ice storms resulting from strong easterly winds through the Columbia Gorge and lightning strikes. Strong winds and tornadoes can damage buildings and equipment. Lightning could strike buildings affecting power and electrical equipment. Ice storms can coat roads, equipment and buildings resulting in unsafe travel and working conditions and increase load on roofs. Heavy rainfall events can result in localized standing water.

2.18.5.1 Mitigation for Storms

The Facility will be designed to comply with the International Building Code requirements to reduce the risk of damage to structures from storm events. Buildings will be designed for a snow load of 25 pounds per square foot and a 135 mph wind speed (exposure c, strength level per ASCE 7-10). Protection against lightning will be provided by proper grounding and use of intrinsically safe electrical installations. All buildings are required to be designed by a structural engineer. Compliance with the code provisions will be determined during the building permits administered by EFSEC.

During severe weather events, the Facility operator will monitor the conditions at the site and if conditions result in risks to employees or facilities, will cease operations until safe to resume.

2.18.6 Avalanche and Landslides

Landslide hazard areas are typically defined as areas that, due to a combination of slope inclination, soil type, geologic structure, and the presence of water, are susceptible to failure and subsequent downhill movement. No landslides have been mapped on the site or in the vicinity of the project area (Fiksdal 1975). With the exception of along the banks of the Columbia River, the project site is relatively flat. The banks of the river near the area of the dock and a small depression in the area of the storage area have portions where slope inclinations are greater than 25 percent. Avalanche is typically associated with the rapid flow of snow downhill. The project site is well below the snow line elevation and climatic conditions generally do not allow the buildup of snow at the site. Avalanches are not a concern for the project and no mitigation measures are considered necessary.

Based on the lack of landslide deposits mapped in the vicinity of the site, its low topographic relief, and the absence of geologic structures that may increase landslide susceptibility, the impact of landslides to the project is negligible. No mitigation for landslide hazard is anticipated.

Section 2.19 – Security Concerns

WAC 463-60-275
Proposal – Security concerns.

The application shall describe the means employed for protection of the facility from sabotage, terrorism, vandalism and other security threats.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-275, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-275, filed 10/8/81. Formerly WAC 463-42-300.)

Section 2.19 Security Concerns

2.19.1 Port of Vancouver Security

The Facility is located at the Port and will be operated in accordance with the Port's security program. Access to the port's marine terminals is allowed primarily through the main security gate at the 26th Avenue overpass. The port's security plan and policies require that all people entering the port's terminal areas show photo identification and have a valid business purpose to be on the Facility. This is accomplished through the port's screening process, administered to anyone who enters the port's marine terminals. In addition, this area is secured with fencing, video camera monitors and 24/7 stationary and mobile patrols.

All personnel who perform work (including contractors and consultants) within the Port's maritime facility are required to have a Transportation Worker Identification Credential (TWIC) in order to perform their duties without an appropriate credential person to provide an escort. This program was established by Congress and is administered by the Transportation Security Agency and the USCG.

2.19.2 Construction Phase Security Plan

The Applicant and selected contractor(s) will develop a formal site security plan to safely secure the site during the construction phase. This plan will outline access procedures, roles and responsibilities and identify the methods of physically securing the site. Measures such as perimeter fencing, access gates, CCTV systems and security personnel may be employed. Area 400 will require that construction personnel comply with TWIC requirements. The plan will be developed in coordination with the Port security personnel.

2.19.3 Operations Site Security Plan

An Operations Site Security plan will be completed pursuant to 33 CFR 105 and will be approved by the Port and USCG. Security measures anticipated at the site include fencing to prevent any public access to project facilities. The northern side of the WVFA rail loop facilities is fenced to prevent public access. Security gating will be provided at the rail loop access at the Gateway overpass. Security provisions for Area 400, Marine Vessel Loading, will be implemented as described in section 2.19.4 below.

Parking for the Facility's operations and maintenance staff will be provided at the administration and support buildings. All other persons, such as vendor equipment personnel, maintenance contractors, material suppliers, and all others, will acquire permission for access from a designated site employee prior to entrance. Access to each project area will be granted on a project/job need basis by the Plant Manager.

2.19.4 Federal Requirements Applicable to Area 400 – Marine Vessel Loading

2.19.4.1 Overview

As a result of the Facility's capacity to transfer oil in bulk to a vessel that has a total capacity of all bulk products carried of 250 barrels or more, the Facility is regulated under the federal provisions of 33 CFR 154. In turn, the Maritime Transportation and Security Act of 2002 (MTSA), as implemented through 33 CFR 105, establishes federally mandated security requirements for facilities regulated under 33 CFR 154. The provisions of 33 CFR 105 will only

apply to the facilities located, and activities conducted, at Area 400 – Marine Vessel Loading. The primary provisions of 33 CFR 105 are summarized in Table 2.19-1 below.

Table 2.19-1. Summary of 33 CFR 105 Provisions

Subpart	Provisions
Subpart A – General	<ul style="list-style-type: none"> • Applicability, documentation and compliance dates • Compliance with the Maritime Security (MARSEC) directive⁽¹⁾
Subpart B – Facility Security Requirements	<ul style="list-style-type: none"> • Definition of a security organizational structure, including the appointment of a Facility Security Officer, preparation and conducting of a Facility Security Assessment (FSA) in accordance with Subpart C, and implementation of the Facility Security Plan (FSP), including related training, drill and record keeping activities. • Implementation of the TWIC program • Compliance with Maritime Security (MARSEC) level coordination and implementation at the port ⁽¹⁾
Subpart C – Facility Security Assessment (FSA)	<ul style="list-style-type: none"> • Requirements for conducting and documenting the FSA
Subpart D – Facility Security Plan (FSP)	<ul style="list-style-type: none"> • Format, Content and preparation of the FSP • Requirements for submittal of the FSP 60 days prior to the beginning of terminal operations • Amendment, annual auditing, and biannual USCG inspection processes

(1) MARSEC directives and levels are established by the USCG under 33 CFR 101, Maritime Security: General.

2.19.4.2 Facility Security Plan

The Applicant will conduct a FSA and develop a FSP in accordance with 33 CFR 105; the plan will be submitted to the USCG Captain of the Port (COPT) 60 days prior to beginning operations at Area 400. The plan is sensitive security information and will be protected in accordance with 49 CFR 1520. The contents of the plan will be developed based on the final design and operational parameters of the Facility, and are expected to include, but not be limited to, the implementation of the following security actions, subject to final determination by the USCG:

- All unloading, storage, internal pipe lines, and valves will be contained within the Facility’s restricted area that will be monitored by a dedicated security force at all times.
- Access to the restricted area will be secured and monitored.
- Site security lighting
- Monitored security video camera system
- All persons requiring unescorted access to the Facility, including employees and contractors, must possess Transportation Workers Identification Credential (TWIC).
- Conducting security exercises and drills
- Identification of coordination actions with local and state law enforcement agencies.
- Procedures for access during emergency events
- Appointing a Facility Security Office with responsibilities to maintain and implement the FSP.

In addition, the Port will support and supplement the Facility’s security efforts with controls to deter access, and fixed and mobile patrols and will coordinate with the Facility for an integrated security posture.

Section 2.20 – Study Schedules

WAC 463-60-285
Proposal – Study schedules.

The application shall furnish a brief description of all present or projected schedules for additional environmental studies. The studies descriptions should outline their scope and indicate projected completion dates.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-285, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-285, filed 10/8/81. Formerly WAC 463-42-130.)

Section 2.20 Study Schedules

The Applicant has not identified or is aware of any additional environmental studies necessary to support the application for site certification. Additional technical documentation will be completed for the design of the Facility, including a final Geotechnical Investigation Report for construction below the OHWM. It is possible that additional studies may be required by federal agency consultation.

Section 2.21 – Future Activities

WAC 463-60-295

Proposal – Potential for future activities at site.

The application shall describe the potential for any future additions, expansions, or further activities which might be undertaken by the applicant on or contiguous to the proposed site.

(Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, amended and recodified as § 463-60-295, filed 10/11/04, effective 11/11/04. Statutory Authority: RCW 80.50.040(1) and Chapter 80.50 RCW. 81-21-006 (Order 81-5), § 463-42-295, filed 10/8/81. Formerly WAC 463-42-140.)

Section 2.21 Potential for Future Activities at the Site

At this time, the Applicant does not have any plans for additions, expansions, or future activities within the proposed project boundary or on properties contiguous to the proposed project boundary. The lease between the Applicant and the Port allows for other activities by the Applicant, including handling of other petroleum products, receiving petroleum products at the Marine Terminal and expanding the Facility. The Applicant does not presently have plans to conduct these activities, nor does the Facility design support these activities. At this time, these activities are speculative and engineering and environmental information is not available to support permitting. If the Applicant chooses to modify the Facility to take advantage of the above-described allowances of the lease, an amendment to the Site Certification Agreement would be pursued through EFSEC.

Section 2.22 – Analysis of Alternatives

WAC 463-60-296

Proposal – Analysis of alternatives.

The application shall include an analysis of alternatives for site, route, and other major elements of the proposal.

(04-23-003, recodified as § 463-60-296, filed 11/4/04, effective 11/11/04. Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, § 463-42-296, filed 10/11/04, effective 11/11/04.)

Section 2.22 Analysis of Alternatives

The Facility's principal purpose is to provide North American sourced crude oil to U.S. refineries to potentially offset or replace declining Alaska North Slope and California crude oil production and foreign crude oil imports. The Port site is the closest developed deep-water marine water terminal to the Midwest oil fields, therefore minimizing the distance needed for product transportation and shipping to West Coast refineries.

2.22.1 Site Selection

The Facility is designed to receive crude oil by rail, store it on site, and load it on marine vessels primarily for delivery to refineries located on the West Coast of North America. The Port issued a "statement of interest" seeking proposals to develop a petroleum by rail facility at the Port. Tesoro, a long term Port tenant, teamed with Savage Services Corporation to jointly submit a proposal to the Port for the formation of the Application and development of the Facility. The Port received four proposals and after consideration of a variety of criteria, including safety, environmental, community, financial, market and operations, selected the Applicant to enter into negotiations for the site.

In order to meet the Applicant's purpose and need for the Facility, the following elements were deemed necessary to develop a facility of this type: 1) a deep draft marine terminal ideally owned by a public port, with existing land use zoning to allow the Facility and with existing marine infrastructure; 2) a project site that has existing, or can accommodate, rail infrastructure capable of handling multiple unit trains to accommodate the proposed project capacity; 3) a site that is in close proximity to mainline rail access, and as close as possible to the source of the product to minimize the cost of rail transportation with a relatively central location to serve west coast refineries; and 4) a site large enough to accommodate the remaining Facility elements, especially sufficient area for storage that allows product segregation to service multiple clients. In addition, a specific site has to be available for control by a potential applicant, and overall development of the project must be timely to meet current market needs.

Port locations in California do not meet the Applicant's purpose and need because they would be located furthest by rail from the crude production areas in the Midwest.

Of the eleven deep-draft ports in Washington State, three are located along the Washington side of the Columbia River system (Longview, Kalama, and Vancouver), seven are located in Puget Sound (Olympia, Tacoma, Seattle, Everett, Anacortes, Bellingham, and Anacortes), and one in Grays Harbor on the coast.

The Port of Kalama is currently advertising the "Northport" 70-acre Marine Heavy industrial site, located in the northern area of the port (Port of Kalama, 2014). This site is accessible from a BNSF spur, but is not currently developed to accommodate unit trains. A previous development proposal for this site investigated the potential to add rail infrastructure to accommodate unit trains (URS, 2006); however the proposal was dependent on the filling of wetlands to accommodate the rail infrastructure (as of January 2014, these wetlands had not yet been filled (Carrico, 2014)). In addition, rail capacity for use of this location has been identified as constrained due to trains leaving/entering the main BNSF lines at Kalama (BST Associates, et al., 2011). Due to the lack of rail infrastructure and existing rail capacity constraints this location would not meet the Applicant's criteria for development of the Facility.

The former Reynolds Metal aluminum smelter site in Longview is already proposed for the location of a coal export facility (Millenium Bulk Terminal). The Port of Longview is currently advertising a heavy industrial zoned 49-acre site at its east industrial park (Port of Longview, 2014); an existing marine dock at the site services an existing grain terminal, and would not be available for use by another tenant. Due to the lack of marine infrastructure, this site does not meet the Applicant's criteria for development of the Facility. Public port locations in northwestern Washington (Anacortes, Bellingham, Everett), though accessible directly by mainline rail, or spur to mainline rail, are also situated furthest from the crude production areas with respect to rail transportation, and for the most part lack the area necessary to implement unit train handling. The Port of Port Angeles is not served by rail. Potential sites that could accommodate unit train infrastructure at the Port of Tacoma were under the control of others. The Port of Seattle is specialized in containerized intermodal activities, and does not have the necessary infrastructure to accommodate unit trains. The Port of Olympia is accessible by rail spur from the BNSF mainline, but does not have any real estate currently available to accommodate a 45-acre development (Port of Olympia, 2014). Suitable project sites may exist at the Port of Grays Harbor. However these locations themselves are currently under development, and are not available for control by the Applicant.

In Oregon, reasonable rail access is available at the following deep draft ports: Astoria, Newport, Portland and St. Helens (Parsons Brinckerhoff, 2010). The Port of Portland is the only port served directly by a mainline railroad. The Port of Portland is in close proximity to the Port of Vancouver, and potential environmental issues would likely not be materially distinguishable from the Port of Vancouver site. Further, the Port of Vancouver, not the Port of Portland, solicited bids for this development. The remaining three Oregon ports are served by short line rail spurs. The Port of St. Helens is already the location of a smaller crude-by rail facility.

The site selected for the Facility meets all of these criteria:

- 1) The Port of Vancouver is located at head of the deep-water shipping channel on the Columbia River; the Facility will use an existing berth built in the 1990s and established specifically for deep draft vessels. The Port of Vancouver is one of the closest available port to the source of domestic crude oil, and is reasonably central in location to the West Coast refineries.
- 2) The Terminal 5 site represents the westernmost extension of the WVFA project and is designed to accommodate unit trains. The WVFA project also involves other improvements specifically designed to increase the ability to the Port to handle train traffic.
- 3) In addition to the developed WVFA rail loop at Terminal 5, sufficient land is available at Parcel 1A to accommodate the necessary storage tanks for the temporary storage of crude oil. Furthermore, the location proposed for facility elements have all been previously disturbed, and there will be no fill of wetlands or surface water bodies.

The Applicant has worked very closely with the Port to ensure the Facility will not impede overall terminal use by existing tenants or the development of other Port projects. All project elements have been carefully sited to avoid conflicts with existing easements and utilities, and to allow continued access to existing and future adjacent activities. In addition, the project will reuse a former brownfield site for job creating activities and reduce pressures for the development of greenfield locations.

2.22.2 Unloading System Alternatives

During project design, the Applicant considered two variations for the unloading facility: An uncovered facility and a covered facility. Ultimately the development of a covered facility was selected for the following reasons:

- A covered facility minimizes the amount of stormwater that can potentially come in contact with an unintentional release of materials, and allows the use of the existing Port stormwater facilities as described in Section 2.11 above; exposure of stormwater in the unloading area to potential contaminants would have meant that stormwater collected from this area would have needed to be treated as process water and could not be sent to the City's WWTP, resulting in more ground disturbance to construct the necessary capture, treatment and discharge facilities.
- A covered facility minimizes the amount of stormwater that can potentially come in contact with an unintentional release of materials, and allows the use of the existing Port stormwater facilities for disposal as described in Section 2.11 above; exposure of stormwater in the unloading area to potential contaminants would have meant that stormwater collected from this area would have required additional control and treatment resulting in more ground disturbance to construct the necessary improvements.

2.22.3 Wastewater Discharge

As noted in Section 2.9.4, the total discharge amount of the Facility's wastewater flows is not significant when compared to the overall City treatment plant flows or capacity. The boiler units and effluent pretreatment systems are standard equipment. The location of the project within the City's service area and sanitary sewer service basin of the City WWTP eliminates further alternatives analysis. Discharges will be within the City discharge requirements.

2.22.4 Stormwater Discharge

The existing Port stormwater capture and treatment infrastructure at the site is fully developed. As described in Section 2.11, the conveyance facilities have the capacity to accept treated Facility stormwater. Establishment of a separate stormwater system would have required substantially more ground disturbance, including a new outfall to the Columbia River.

2.22.5 Marine Terminal

As noted above, overall site selection considered the availability of existing berthing facilities. The existing berths 13 and 14 are suited to the use being proposed by the Facility. Although modifications are required to meet industry standards, the impacts of these modifications are significantly lower than the impacts of developing a new marine terminal. Constructing a new marine terminal would have likely included dredging, driving a large number of pile, creating all new over-water surface, and possible bank modifications. Selection of the existing berths over a green-field location significantly minimized new impacts, and all additional new impacts will be fully mitigated.

2.22.6 Air Emissions Control

As part of the air permitting effort, the Applicant performed a BACT analysis to identify pollutant-specific alternatives for emission control, and the pros and cons of each alternative. This analysis is presented in detail in Section 5.1. This was made on a case-by-case basis and considered the technical, economic, energy and environmental costs of a certain type of control process for each emissions source.

2.22.7 Route Selection

Route Selection is not applicable to this Facility, as the Facility does not have any linear electrical or gas transmission elements.

2.22.8 No Action Alternative

Under the No Action Alternative, the Facility would not be built. U.S. refineries located along the West Coast would continue to receive crude oil from existing sources, i.e., domestic sources connected to existing overland transportation systems capable of moving the crude oil to the west coast, the Alaska North Slope, and foreign sources. Foreign imports would likely make up for declining Alaska North Slope and California crude oil production.

Section 2.23 – Pertinent Federal, State, and Local Requirements

WAC 463-60-297

Proposal – Pertinent federal, state and local requirements.

(1) Each application shall include a list of all applicable federal, state, and local statutes, ordinances, rules, permits, and required use authorizations (i.e., leases, easements, rights of way, or similar authorizations) that would apply to the project if it were not under council jurisdiction. For each federal, state, or local requirement, the applicant shall describe how the project would comply or fail to comply. If the proposed project does not comply with a specific requirement, the applicant shall discuss why such compliance should be excused.

(2) Inadvertent failure by the applicant to discover and list a pertinent requirement shall not invalidate the application, but may delay the council's processing of the application.

(04-23-003, recodified as § 463-60-297, filed 11/4/04, effective 11/11/04. Statutory Authority: RCW 80.50.040 (1) and (12). 04-21-013, § 463-42-297, filed 10/11/04, effective 11/11/04.)

Section 2.23 Pertinent Federal, State, and Local Requirements

2.23.1 Applicable Federal, State, and Local Permits and Requirements

Table 2.23-1 includes a list of the federal, state, and local permits and requirements that would apply to the proposed project if it were not reviewed under the EFSEC process. The table includes the name of the permit or approval, the agency responsible for issuing the permit along with the applicable regulation or statute, and the section of the EFSEC application that addresses that requirement. For the meaning of the acronyms used in the table, please see the list of acronyms, initialisms, and abbreviations at the beginning of this application.

Table 2.23-1. Applicable Federal, State, and Local Permits and Requirements

Permit or Approval	Agency/Statute and/or Regulation	Application Section
Federal Permits/Approvals		
NEPA Compliance	USACE (anticipated federal lead agency for this project) 40 CFR 1500-1508	Not Applicable
ESA Section 7 Consultation	USFWS and NMFS Section 7 of ESA	3.4, Appendix H.1
Magnuson Stevens Fisheries Conservation and Management Act	NMFS 50 CFR 600	3.4, Appendix H.1
Marine Mammal Protection Act (MMPA)	USFWS and NMFS 50 CFR 18 and 50 CFR 216	3.4, Appendix H.1
National Historic Preservation Act (NHPA) Section 106 Review	USACE, in consultation with Department of Archeology and Historic Preservation (DAHP) 16 USC 470	4.2.5,
Section 10 Permit	USACE Rivers and Harbors Act 33 CFR 322	Appendix H.2
Private Aids to Navigation (PATON) Permit	USCG 33 CFR 62	4.3
Hazardous Materials & Oil Transportation Regulations	US Department of Transportation Hazardous Material Transportation Act (HMTA), 49 CFR 100-185	4.1.4
Maritime Procedures	USCG 46 CFR 35 (Tank Vessels – Operations)	2.10
MTSA	USCG 33 CFR 101-107	2.19
Facilities Transferring Oil or Other Hazardous Materials in Bulk	USCG 33 CFR 154 Subpart E Vapor Control Systems 33 CFR 154 Subpart F Response Plans for Oil Facilities	4.1.4.2
Oil and Hazardous Material Transfer Operations	USCG 33 CFR 156	2.10
Discharge of Oil ("Sheen Rule")	EPA 40 CFR 110	2.10

Permit or Approval	Agency/Statute and/or Regulation	Application Section
Oil Pollution Prevention	40 CFR 112, Subpart A, Subsection 112.8 of Subpart B	2.10
Emergency Planning and Community Right-to-Know Act (EPCRA)	EPA 40 CFR 350-372	4.1.6.1
State Permits/Approvals		
SEPA Compliance	Ecology (EFSEC lead agency for this project) RCW 43.21C and WAC 197-11	Parts 2, 3, and 4
Hydraulic Project Approval (HPA)	WDFW Hydraulic Code (RCW 77.55 and WAC 220-110)	Appendix H.2
Ballast Water Management	WDFW RCW 77.120 and WAC 220-150	Appendix H.1
Aquatic Land Management	Washington State Department of Natural Resources (DNR) RCW 79.105 and WAC 332-30-123	H.2
NPDES Industrial Stormwater Permit	Ecology Clean Water Act (CWA), 40 CFR 122.28, RCW 90.48 and WAC 173-220	5.2
NPDES Construction Stormwater General Permit	Ecology CWA, 40 CFR 122.28, RCW 90.48 and WAC 173-220	5.3
MTCA Consent Decree/ Restrictive Covenant Work	Ecology RCW 70.105D, RCW 64.70, WAC 173-340	4.1
Prevention of Significant Deterioration Permit	Ecology Federal Clean Air Act (as delegated to Ecology) Washington Clean Air Act RCW 70.94 WAC 173-400-700	5.1
Facility Oil Handling Standards <ul style="list-style-type: none"> • Oil Transfer Requirements • Design Standards • Operations Manual • Training/Certification • Oil Transfer Response Plans 	Ecology WAC 173-180 (Facility Oil Handling Standards)	2.10, 2.19, 4.1
Vessel Oil Transfer Advance Notice and Containment	Ecology WAC 173-184	4.1
Spill Prevention and Contingency Plans	Ecology RCW 90.56 (Oil and Hazardous Substance Spill Prevention and Response), WAC 173-180 (Facility Oil Handling Standards), WAC 173-182 (Oil Spill Contingency Plan), WAC 173-183 Oil Spill Natural Resource Damage Assessment	2.10, 2.11, 5.2, 5.3

Permit or Approval	Agency/Statute and/or Regulation	Application Section
Dangerous/Hazardous Waste Regulations	Ecology RCRA 40 CFR 260 RCW 70.105 (Hazardous Waste Management), WAC 173-303	4.1
Safety and Health Regulations	Washington State Labor & Industries OSHA RCW 49.17 (WISHA), WAC 296	4.1
Hazardous Chemical Emergency Response Planning And Community Right-To-Know Reporting	Ecology WAC 118-40	4.1.6.1
Boiler and Unfired Pressure Vessel Rules	Labor and Industries RCW 70.79;WAC 296-104	2.3
Local Permits/Approvals		
Site Plan Review	City VMC 20.270	4.2
Shoreline Substantial Development Permit	City RCW 90.58 and City SMP	Appendix I.1, I.2
Critical Areas Permit	City VMC 20.740	4.2, Appendix H.1
Tree Ordinance	City VMC 20.770	2, Appendix H.1
Archaeological Predetermination Review	City VMC 20.710	4.2.5
Transportation Concurrency	City VMC 11.70	4.3, Appendix J
Major Grading Permit	City IBC, VMC Title 12 and Title 17	3.1, Appendix G
Civil Engineering Review	City VMC Title 10, Title 11, and Title 14	Appendix F, G, J
Building, Fire, Mechanical and Electrical Permits	City IBC, IMC, IFC, UPC, NEC, Washington State Energy Code, VMC Title 16 and Title 17	2.18, 3.1, 4.1
Industrial Waste Discharge Permit	City Wastewater Discharge Standards WAC 173-221A VMC 14.10	5.2

Permit or Approval	Agency/Statute and/or Regulation	Application Section
Air Discharge Permit(s)	SWCAA Federal Clean Air Act (as delegated to SWCAA) Washington Clean Air Act RCW 70.94 NSPS 40 CFR 60 Crude Oil Storage Tanks equipment and procedures defined in 40 CFR 60.112b HAPs 40 CFR 61 MACT Standards 40 CFR 63 RCW 70.94 NOC preconstruction permit WAC 173-400-110 Title V air operation permit WAC 173-401 TAPs WAC 173-460 Particulate Matter WAC 173-470 Sulfur Oxides WAC 173-474 VOCs WAC 173-490	5.1

2.23.2 Federal Permits and Approvals

This section covers applicable federal permits and approvals for the proposed project. Where a federal regulation is delegated to the state, it is included under the state process in section 2.23.3 below.

2.23.2.1 National Environmental Policy Act Compliance

*Federal lead agency is likely the USACE.
40 CFR 1500-1508*

Any project with a federal nexus requires that the lead federal agency comply with the National Environmental Policy Act (NEPA). The federal action of issuance of a permit or approval by the USACE triggers NEPA review, and the USACE typically will take NEPA lead status.

Project Compliance

The USACE, or appropriate lead agency, is responsible for compliance with the requirements of NEPA. For the proposed project, NEPA compliance could require the preparation of an environmental assessment (EA) or environmental impact statement (EIS), or may rely on programmatic NEPA compliance available through one or more Nationwide Permits. The Applicant would provide the USACE with any relevant project studies and information to assist the NEPA review and determination. The USACE handles all NEPA review and documentation requirements as part of the Section 10 permit (see section 2.23.6).

2.23.2.2 Endangered Species Act, Section 7 Consultation

USFWS and NMFS

Section 7 of the Endangered Species Act

The Endangered Species Act (ESA) provides protection for federally listed endangered and threatened species and their habitat. The ESA requires that federal agencies consult with the USFWS and NMFS when actions have the potential to affect listed species or critical habitat. NMFS addresses actions affecting salmon, other marine fishes, marine mammals, and marine reptiles. USFWS addresses actions affecting birds, terrestrial animals, plants, amphibians, and most freshwater fish. The consultation process can be informal if the effects would be beneficial

or discountable, or formal if the effects are more than discountable. The Columbia River provides habitat for multiple listed salmonids, smelt, sturgeon, and Steller sea lion. The proposed in-water construction elements require federal permits which triggers the need for ESA compliance.

Project Compliance

The USACE, as the federal lead agency for the proposed project, is required to demonstrate compliance with Section 7 of the ESA. A biological evaluation (BE) will be prepared and submitted to the USACE as the federal lead for consultation with the USFWS and NMFS. While the scope of ESA compliance is determined by the USACE, because the project may affect listed species and/or critical habitat, it is likely to require formal consultation and the USACE will provide the BE to USFWS and NMFS. NMFS and/or USFWS will prepare a biological opinion if warranted that documents the effects on the species and critical habitat and establishes terms and conditions for the USACE to follow in issuance of the permit.

2.23.2.3 Magnuson Stevens Fisheries Conservation and Management Act

NMFS

50 CFR 600

The Magnuson Stevens Fisheries Conservation and Management Act provides for the conservation and management of fishery resources to prevent overfishing, rebuild overfished stocks, and facilitate the long-term protection of essential fish habitats in order to protect the viability of commercial and recreational fisheries. The Act requires that federal agencies consult with NMFS when actions have the potential to affect essential fish habitat. The consultation is done as part of the ESA consultation process described above.

The Columbia River includes habitats that have been designated as essential fish habitat (EFH) under the Act for various life-history stages of Chinook and coho salmon (Pacific salmon EFH composite). The proposed in-water construction elements require federal permits which triggers the need for compliance with the Act.

Project Compliance

The USACE, as the federal lead agency for the proposed project, is required to demonstrate compliance with the Magnuson-Stevens Act. A BE will be completed for this project and will be submitted to the USACE as the federal lead for consultation with NMFS. NMFS will review the BE.

2.23.2.4 Marine Mammal Protection Act

USFWS and NMFS

50 CFR 18 and 50 CFR 216

The Marine Mammal Protection Act (MMPA) provides protection for all marine mammals and prohibits the import, export, sale, hunting, killing, capture, and harassment of marine mammals. Activities that could result in the “take” of marine mammals should be designed and implemented to avoid take. If take is unavoidable, issuance of an Incidental Harassment Authorization (IHA) or Letter of Authorization (LOA) may be required.

The Columbia River provides habitat for California sea lions, harbor seals, and Steller sea lions which are protected by the MMPA under the jurisdiction of NMFS. The proposed project, with both in-water work and activities adjacent to the river, has the potential to impact these species.

Project Compliance

The pile removal associated with the improvements to berths 13 and 14 will generate sound levels that could exceed established disturbance thresholds for marine mammals. It is anticipated that the pile removal will be timed to occur when marine mammals are not likely to be present in the Columbia River. If necessary, a marine mammal monitoring plan will be implemented to shut down pile removal operations if a marine mammal is sighted in the area where noise levels exceed the established thresholds.

2.23.2.5 Section 106 Review

*Department of Archaeology and Historic Preservation
Section 106 of the National Historic Preservation Act*

The National Historic Preservation Act (NHPA) provides for the preservation of sites listed on the National Register of Historic Places and those eligible for listing. The NHPA requires the lead federal agency to consider the impacts of a federal action on any cultural or historic resource listed on or eligible for listing on the National Register.

Project Compliance

The USACE, as the anticipated federal lead agency for the proposed project, is required to demonstrate compliance with Section 106 of the NHPA. State and local compliance with cultural resources regulations is addressed below in section 2.23.4.5. A cultural resources report will be prepared and submitted the USACE as part of the Section 10 permit process.

2.23.2.6 Section 10 Permit

*United States Army Corps of Engineers (USACE)
Rivers and Harbors Act 33 CFR 322*

A Section 10 permit issued by the USACE is required when work occurs in, over, or within a navigable waterway. The Columbia River is a navigable waterway, and proposed work associated with the ship loading and the existing dock at berths 13 and 14, may trigger the requirement for a Section 10 permit; compliance may be achieved through one or more Nationwide Permits.

Project Compliance

A Joint Aquatic Resource Permit Application (JARPA) (Appendix H.2) has been prepared for the project and will be submitted to the USACE for review and potential issuance of the Section 10 permit or acknowledgement that the work is authorized through one or more nationwide permits. The JARPA is submitted with applicable reports and studies completed for the project to demonstrate how the project complies with the permitting requirements.

2.23.2.7 Private Aids to Navigation Permit

United States Coast Guard (USCG)

33 CFR 62

A Private Aids to Navigation (PATON) permit issued by the USCG is required for all activities involving in-water structures that may affect marine traffic or involve the installation of navigational aids (lights and/or markings). In-water construction elements may elect to, or be required to, install lights or other markings to aid in navigation. A permit is required to install new navigational aids and/or modify existing navigational aids.

Project Compliance

The USACE will provide the USCG with a copy of the submitted JARPA and the USCG will review the application to determine if navigational aids will be required. Any new or modified navigational aids will follow the requirements for navigational aids per 33 CFR 62.

2.23.2.8 Hazardous Materials & Oil Transportation Regulations

U.S. Department of Transportation (USDOT)

49 CFR 100-185

The USDOT regulates the transportation of hazardous materials for all modes of transportation, including air, highway, rail and water under the hazardous materials regulations (HMR) contained in 49 CFR 100-185. The Marine Terminal elements, as a portion of the Facility used to transfer oil in bulk to a vessel, must comply with the applicable HMRS.

Project Compliance

Facility design, procedures, policies, and operations of the proposed elements at the Marine Terminal will be carried out in accordance with the rules and regulations of 49 CFR 100-185.

2.23.2.9 Maritime Procedures

USCG

46 CFR 35

The purpose of 46 CFR 35 is to regulate the operations of tank vessels. Specifically, 49 CFR 35.03 requires that work vests be worn by crew members when working near or over water under favorable working conditions. Section 49 CFR 35.30 covers general safety rules and subpart 35.35 covers requirements that apply to cargo handling on tank vessels.

Project Compliance

All vessels calling on the Facility will comply with the provisions of the program in the operation of the vessel.

2.23.2.10 Maritime Transportation Security Act (MTSA)

USCG

33 CFR 101-107

The Maritime Transportation Security Act (MTSA) is designed to protect ports and waterways from a terrorist attack. The law requires vessels and port facilities to develop security plans and conduct assessments of the vulnerability of their facilities. The USCG collaborates on the plans to help secure ports and vessels in or adjacent to U.S. waterways.

Project Compliance

The proposed project will produce the required facility plans for the operation of the oil terminal in compliance with the MTSA. These plans are discussed in further detail in section 2.19 of this application.

2.23.2.11 Facilities Transferring Oil or Other Hazardous Materials in Bulk

USCG

33 CFR 154 Subparts A through F

The 33 CFR 154, Facilities Transferring Oil or Other Hazardous Materials in Bulk, applies to facilities capable of transferring oil to or from a vessel with a capacity of 250 barrels or more.

Subparts A through D apply to the design and operation of the vessel loading equipment associated with Area 400.

Subpart E, *Vapor Control Systems*, regulates the manner in which vapors inside marine vessels are collected, conditioned, and then disposed of to ensure the safety of the loading operation at all times. The regulations require that a “certifying entity” review the plans and calculations for the MVCU, and conduct inspections and witness tests that demonstrate the Facility conforms to the certified plans and specifications, meets the requirement of the applicable regulations and operates properly. Prior to beginning operations, and based upon the inspection and testing, the Facility must receive a letter of adequacy from the USCG Captain of the Port (COPT) with jurisdiction over the geographical location where the Facility is located.

Subpart F, *Response Plans for Oil Facilities*, addresses oil spill response contingency planning for fixed marine transfer facilities that could reasonably be expected to cause substantial harm or significant and substantial harm to the environment by discharging oil into or on the navigable waters, adjoining shorelines, or exclusive economic zone (EEZ).

Project Compliance

The Facility will incorporate the necessary design elements to comply with these regulations, and the Applicant will make the necessary submittal to the USCG to obtain approval of the MVCU prior to beginning operations of the vessel loading systems, and prepare a spill response contingency plan.

2.23.2.12 Oil and Hazardous Material Transfer Operations

USCG

33 CFR 156

This regulation applies to the transfer of oil or hazardous material on the navigable waters or contiguous zone of the United States to, from, or within each vessel with a capacity of 250 barrels or more. The regulation establishes procedures for advance notification of transfers to the USCG, design considerations for the equipment used to transfer oil, supervision and monitoring of transfer operations, and transfer equipment tests and inspections.

Project Compliance

The Applicant will design the transfer equipment to comply with the requirements of 33 CFR 156, and will implement the necessary procedures for advance notification, supervision and monitoring, and tests and inspections.

2.23.2.13 Discharge of Oil (“Sheen Rule”)

EPA

40 CFR 110

This regulation addresses the reporting of spills to the National Response Center.

Project Compliance

The Applicant will document and implement the requirement to notify the National Response Center in the event of reportable spills of oil in its SPCC plan and spill response contingency plan.

2.23.2.14 Oil Pollution Prevention

EPA

40 CFR 112

Subpart A and Subsection 112.8 of Subpart B, address the requirements for an SPCC plan for a non-transportation facility. These subparts apply to the facilities and operations related to offloading crude oil from the rail cars (Area 200); conveying oil to and storing it in the storage tanks (Area 300); and conveying it to the marine vessel loading area (Area 400).

Project Compliance

The Applicant will develop and implement an SPCC plan.

2.23.2.15 EPCRA

EPA

40 CFR 350-72

The Emergency Planning and Community Right-to-Know Act (EPCRA) establishes requirements for federal, state and local governments, Indian Tribes, and industry regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. Based on the quantities of crude oil stored and the presence of extremely hazardous substances contained in the crude oil stored on-site in quantities greater than corresponding threshold planning quantities TPQs, the Facility is likely to be required to participate in emergency planning efforts with the Clark County Local Emergency Planning Committee, and to file reports with EPA and Ecology.

Project Compliance

The Applicant will make the necessary determinations regarding the quantities of extremely hazardous substances stored on site in relation to the corresponding threshold planning quantities and will initiate applicable planning and reporting activities in consequence.

2.23.3 State Permits and Approvals

2.23.3.1 State Environmental Policy Act Compliance

Ecology (EFSEC will be lead agency for this application)

RCW 43.21C and WAC 197-11

The SEPA requires that any decisions by state or local agencies related to issuance of permits, construction of public facilities, or adoption of regulations or policies, is reviewed to understand how the proposal affects the environment. Environmental review is required under SEPA for any project or activity not meeting the categorical exemption thresholds found in WAC 197-11-800. Typically, the agency responsible for the project or permits is the lead agency. EFSEC is the lead agency for projects requiring site certification.

Project Compliance

Absent EFSEC review, Ecology and/or the City will be the likely SEPA lead agency. It is anticipated that EFSEC will be the lead agency for the project because the project is applying for EFSEC site certification. As lead agency, EFSEC will issue a scoping notice to receive comments from the public, other agencies and jurisdictions, and interested tribes. Scoping will help identify what will be studied in the environmental impact statement (EIS). The lead agency will then evaluate the proposal and issue a draft EIS, followed by a final EIS.

2.23.3.2 Hydraulic Project Approval

Washington State Department of Fish and Wildlife (WDFW)

Hydraulic Code (RCW 77.55 and WAC 220-110)

Hydraulic Project Approval (HPA) is required for any construction activities that use, divert, obstruct, or change the natural flow or bed of any fresh water or saltwater of the state (e.g., the Columbia River). The proposed project will likely require an HPA for work proposed in the water. WDFW will also likely review the project for consistency with management recommendations that have been developed to protect habitat for designated Priority Habitats and Species.

Project Compliance

It is anticipated that EFSEC will contract with WDFW to prepare a recommendation to issue an HPA as part of the site certification. A JARPA has been completed for the project. WDFW can use it in the review and recommendation for issuance of the HPA. The JARPA is submitted with applicable reports and studies completed for the project to demonstrate how the project complies with the permitting requirements.

2.23.3.3 Ballast Water Management

WDFW

RCW 77.120 and WAC 220-150

The WDFW Ballast Water Program regulates the management of ballast water for all vessels of 300 gross tons or more that have operated outside the waters of the state. The owner or operator of a vessel is required to complete a ballast water reporting form at least 24 hours before arriving in waters of the state. Discharge of ballast water is allowed only if there has been open sea exchange or if the ballast water has been treated and meets standards as set in the law.

Project Compliance

All vessels calling on the Facility will comply with the provisions of the program in the operation of the vessel.

2.23.3.4 Aquatic Land Management

*Washington State Department of Natural Resources (DNR)
RCW 79.105 and WAC 332-30-123*

The DNR Aquatic Resources Program manages the use of state-owned aquatic lands to ensure that their use is appropriate and done in a manner that considers the environmental risks, public health and safety risks, and financial risks of the proposed use. DNR regulates use of aquatic lands by issuing a use authorization.

Most of Area 200 is located on land that is under ownership by the Port. A small portion of Berth 13 is located on DNR lands, and the Port and DNR have entered into an agreement that allows the Port to assume management of state owned aquatic lands on behalf of DNR.

Project Compliance

The Port will make appropriate notice to DNR as required by the Port management area agreement.

2.23.3.5 NPDES Industrial Stormwater Permit

*Ecology
Clean Water Act, 40 CFR 122.28, RCW 90.48 and WAC 173-220*

A NPDES permit is required for any surface water discharges of stormwater from industrial facilities. Stormwater from the project site will be discharged to the Port's stormwater system, which in turn discharges to the Columbia River through existing outfalls. Wholesale petroleum bulk stations and terminals (SIC Code 5171) are listed in the general permit as requiring coverage under the industrial general stormwater permit. However, WAC 463-76-031 only allows coverage under the general permit for areas not associated with the industrial activity. Therefore, the need for an individual permit is anticipated.

Project Compliance

Section 5 includes the required application materials for the NPDES permit.

2.23.3.6 NPDES Construction Stormwater General Permit

*Ecology
Clean Water Act, 40 CFR 122.28, RCW 90.48 and WAC 173-220*

An NPDES Construction Stormwater General Permit is required for any construction disturbing more than 1 acre of land. The project will disturb more than an acre of land and will require obtaining permit coverage.

Project Compliance

A Notice of Intent (NOI) is the application form required to obtain coverage under this permit. Along with the NOI, an impaired water body analysis – and supplemental reports (if necessary) – may be required for issuance of the permit coverage. In addition, an SWPPP must be developed

and maintained and inspection, monitoring, and reporting are required during construction. An NOI is provided in section 5.3 of this application.

2.23.3.7 MTCA Consent Decree/Restrictive Covenants

Ecology

RCW 70.105D, RCW 64.70, WAC 173-340

The proposed project site was previously the location of industrial activities that resulted in soil and groundwater contamination. Final removal of contaminated soils on the project site was completed in March 2010 as required by the Cleanup Action Plan and Consent Decree for the site. However, residual concentrations of contaminants remain on the site and an Environmental Restrictive covenants have been placed on the property. In addition, there are four locations within the proposed project boundary that have more restrictive conditions (described further in section 4.1). The proposed project will be required to demonstrate conformance with the requirements of the consent decrees and restrictive covenants for the site.

Project Compliance

Any project activities that propose changes within the locations on the project site under consent decrees or restrictive covenants will be required to receive Ecology approval and demonstrate that the project complies with the consent decree. It is anticipated that EFSEC will coordinate with the Port, as land owner subject to covenant, and with the Industrial Section of Ecology through the site certification process.

2.23.3.8 Prevention of Significant Deterioration Permit

Ecology

Federal Clean Air Act; RCW 70.94, WAC 173-400-700

A Prevention of Significant Deterioration (PSD) air emissions permit is required for the installation and operation of all facilities with the potential for discharge of criteria pollutants in excess of (PSD) thresholds. Per WAC 463-60-537 an application is included with this Site Certification Application. The Facility has GHG emissions greater than 100,000 tons per year, and triggers PSD permitting for this pollutant.

Project Compliance

The application includes the requisite narrative, air emission model results, and a BACT analysis in compliance with permitting requirements. See section 5.1 of this application for the air permit and air quality analysis.

2.23.3.9 Facility Oil Handling Standards

Ecology

WAC 173-180, 33 CFR 154, 40 CFR 112 (Oil Pollution Prevention), 40 CFR 300 (National Oil and Hazardous Substances Pollution Contingency Plan),

The Facility oil handling standards in WAC 173-180 cover all aspects of operations for the proposed project, including oil transfer requirements, design standards, operations manuals, training and certification, and oil transfer response plans. These standards require that the proposed Facility prepare facility operation plans, security plans, emergency and spill response plans to address potential security and safety concerns for the Facility.

Project Compliance

The proposed project will produce the required facility plans for the operation of the oil terminal in compliance with WAC 173-180. These regulations are discussed in further detail in sections 2.10, 2.19 and 4.1 of this application.

2.23.3.10 Vessel Oil Transfer Advance Notice and Containment

Ecology

40 CFR Part 112 (Oil Pollution Prevention), WAC 173-184

An advance notice of oil transfer (ANT) is required for the project during operations any time oil is transferred to a ship. The purpose of these notices is to ensure the safe transfer of oil on or over water to meet the zero spill goal established by WAC 173-184.

Project Compliance

When submitted to Ecology through the online ANT system, the ANT will demonstrate compliance with the requirements of WAC 173-184. These notices will be required during operations of the site and not during construction activities.

2.23.3.11 Spill Prevention and Contingency Plans

Ecology

40 CFR 112, RCW 90.56, WAC 173-180 and WAC 173-182, WAC 173-183

An SPCC plan is required for both construction and operation of the proposed project to help prevent any discharge of oil into navigable waters or adjoining shorelines. The SPCC plan for construction is a required submittal item for the NPDES permits described above and the various prevention and facility operating plans required for the project. An oil spill contingency plan is also required for the project and will be developed and in place prior to operations beginning at the site.

Project Compliance

A preliminary SPCC plan is included to address WAC 463-60-205 and described in sections 5.2 and 5.3 as part of the applications for wastewater and stormwater discharges. Compliance with WAC 173-180, 173-182, and 173-183 is further discussed in sections 2.10 and 2.11 of this application. Final SPCC plans for both construction and operations will be completed prior to the beginning of construction or operations.

2.23.3.12 Dangerous/Hazardous Waste Regulations

Ecology

RCRA, RCW 70.105, WAC 173-303

Any business that produces dangerous waste is referred to as a “dangerous-waste generator” under WAC 173-303 and is legally responsible to identify dangerous waste and how much may be generated by business activities. Dangerous waste, according to state law, includes both federally identified hazardous waste and Washington “state-only” dangerous waste. The proposed project will comply with the requirements of WAC 173-303 with regards to any hazardous waste generated during construction, operation and decommissioning activities. Should any hazardous materials be excavated from the site during the construction, they will be handled in accordance with existing covenant requirements and disposed of in accordance with applicable state and federal regulations.

Project Compliance

Facility design and operations of the proposed project will be in accordance with the rules and regulations of WAC 173-303. Compliance with the dangerous waste regulations is addressed in section 4.1.3 of this application.

2.23.3.13 Safety and Health Regulations

*Washington State Labor & Industries (L&I)
OSHA, RCW 49.17 (WISHA), WAC 296*

Employers in Washington must comply with all applicable safety and health rules as identified in WAC 296. The proposed project, as an industrial facility, must also comply with the Washington Industrial Safety and Health Act (WISHA) under RCW 49.17. Compliance with the state regulations results in compliance with the federal Occupational Safety and Health Act (OSHA) that ensures employees do not suffer any material impairment of health and functional capacity due to occupational exposure to hazards.

Project Compliance

Facility design and operations of the proposed project will be carried out in accordance with the rules and regulations of WISHA and WAC 296. Section 4.1.4 of this application provides additional detail regarding compliance with these regulations.

2.23.3.14 Hazardous Chemical Emergency Response Planning and Community Right-To-Know Reporting

*Ecology
WAC 118-40, RCW 38.52.030(2); 38.52.050 (1) and (3); and 43.63A.060.*

This chapter implements the provisions of EPCRA in the state of Washington to establish a mechanism for compliance by state and local governmental agencies and industry. Compliance with the requirements of EPCRA, as recognized by the United States Environmental Protection Agency, is regarded as compliance with the provisions of this chapter.

Project Compliance

The Applicant will make the necessary determinations regarding the quantities of extremely hazardous substances stored on site in relation to the corresponding threshold planning quantities and will initiate applicable planning and reporting activities in consequence.

2.23.3.15 Boiler and Unfired Pressure Vessel Laws and Rules

*Labor and Industries
RCW 70.79; WAC 296-104*

These laws and rules establish requirements for construction, installation, repairs and general requirements applicable to boilers.

Project Compliance

The boilers will be designed, installed and operated in accordance with these provisions.

2.23.4 City Permits and Approvals

This section discusses applicable City permits and approvals for the proposed project. As explained in this application, the proposed project will be reviewed and approved through the

EFSEC site certification process. The Applicant conducted a pre-application conference with the City and the report is included as Appendix I.1, which identified applicable development standards that would apply to the project absent EFSEC jurisdiction. The applicable City requirements have been stated below. Section 4.2 addresses applicable and use plans and regulations in more detail and how the Facility is consistent with the application standards. Table 2.23-1 lists the applicable city standards and approvals.

Project Compliance

If not reviewed through the EFSEC process, the proposed project would be subject to the City's Type II site plan review process as described in VMC 20.210.050. The City's land use procedures ordinance requires that all land use applications required for a project shall be considered under the highest review process. The Type II process applies to quasi-judicial permit and actions that involve discretion by the responsible official, in this case the planning director. The Type II process includes a public notice but does not involve a public hearing. Appeals of the planning director's decision can be made to the City's land use hearing examiner. Because the project also involves a shoreline substantial development permit, the decision of the City would also be provided to Ecology and appeals of the decision on the shoreline permit could be made to the Washington Shoreline Hearings Boards.

Following approval of the preliminary land use application through the Type II process and resolution of any appeals the City requires approval of final site plan documenting compliance with conditions identified in the land use decision and the approval of engineering plans documenting compliance with City construction standards (for city owned utilities and roadways). These are followed by the review and issuance of grading, building and other construction permits.

Section 4.2 lists how the project is in compliance with the application city land use standards.

2.23.4.1 Transportation Concurrency

City

VMC 11.70

VMC 11.70 requires that projects that generate additional weekday PM peak hour vehicle trips be reviewed for transportation impacts.

Project Compliance

If not reviewed through the EFSEC process, the proposed project would be subject to the City's Type II site plan review process. The City would address compliance with transportation concurrency standards through the site plan review process.

It is estimated that, at full project build-out and operating capacity, the project as proposed will result in approximately 332 average daily trips (ADT), with approximately 48 trips occurring in the weekday AM peak hour and 46 trips occurring in the weekday PM peak hour. Traffic generation is based on the anticipation that approximately 110 full-time staff will be employed by the Facility at full capacity. The trip estimates are based on trip rates from *Trip Generation*, 9th Edition published by the Institute of Transportation Engineers using data for land use code 110 (Light Industrial).

A transportation impact analysis was completed by Kittelson & Associates for the project. Based on the analysis, all intersections within the study area will operation adequately during the AM and PM peak hours and all concurrency corridors will maintain acceptable levels of service. Additional information is included in section 4.3 and Appendix J of this application.

2.23.4.2 Major Grading Permit

City

IBC, VMC Title 12 and Title 17

A major grading permit is required by the City for any grading, cuts, fills, and or stockpiling of more than 500 cubic yards or by the presence of a critical area no matter the grading volume. Grading permits are required for general site grading and not for excavations for utilities or building foundations.

Project Compliance

If not reviewed through the EFSEC process, the proposed project would be subject to a major grading permit from the City. The grading permit would require the submittal of an application form, grading plans, and geotechnical report. It is anticipated that EFSEC will contract with the City for the review and issuance of this permit.

2.23.4.3 Civil Engineering Review

City

VMC Title 10, Title 11, and Title 14

The City requires that development complete a civil engineering design and review process. This process ensures compliance with the City's engineering standards.

Project Compliance

If not reviewed through the EFSEC process, the proposed project would be subject to the City's civil engineering review process.

The City's civil engineering review requires the submittal of the following documentation: preliminary and final civil plans, erosion/sediment control, water, sewer, contaminated materials management plan, an SPCC plan, and a stormwater report. It is anticipated that EFSEC will contract with the City for the review and issuance of this permit.

Streets and Sidewalks – The project does not include any proposed improvements to existing streets or sidewalks. Primary vehicular access to the proposed project will be to the administration building portion of Area 200, on NW Old Lower River Road, a private road owned and maintained by the Port. NW Old Lower River Road connects with NW Lower River Road (SR 501) approximately 1,000 feet west of the proposed office building. Area 300 will be accessed from a shared drive with Farwest Steel from NW Lower River Road. Area 300 is not anticipated to require full-time staffing and parking will be provided for routine maintenance needs. Area 400 will be accessed by Gateway Avenue and Port-maintained access roads. An existing asphalt area at the berths will be used by project personnel during ship loading operations. Area 600 will not be occupied full time, but parking will be provided for maintenance vehicles and access will be from NW Old Lower River Road. Driveways will comply with the provisions of VMC 11.80.110.

Water – The proposed project location is currently served by City water and a Port-operated private water system. According to the pre-application conference report (lines 1397-1398), City records show an existing 12-inch, 14-inch, and 16-inch ductile iron (DI) main in NW Old Lower River Road, a 16-inch DI main in SR 501, and a 10-inch DI main in NW Harborside Drive in the dock area. Existing fire hydrants are currently available on or adjacent to all areas of the proposed project with an estimated minimum fire flow of 3,500 gallons per minute (gpm). Consistent with City standards as stated in the pre-application report (lines 1407-1430), the proposed project will meet Fire Marshal pipe size requirements.

Sanitary Sewer – The anticipated sanitary sewer discharges include domestic sewerage from the administration and support buildings in Area 200, treated boiler blowdown water (wastewater generated from solids left behind during the steam generation process) in Areas 300 and 600, domestic sewerage from a restroom located inside of the boiler building in Area 300, and a sump pump located in the pump basin in Area 300. Boiler blowdown water will be pre-treated for heat before discharge to the City sanitary sewer system. New service laterals will be installed to existing manholes. Pretreatment, sewer connections, and lateral installations will meet applicable City standards. As stated in the pre-application report (lines 1496-1501), the construction of public sewers will not be required.

Erosion Control – The project’s grading plans are designed to minimize and control erosion and sedimentation. A site-specific construction SWPPP will be developed and implemented. A preliminary construction SWPPP is included in this application; this preliminary SWPPP was developed based on the Facility level of design at the time of submittal. A final construction SWPPP will be developed prior to beginning any Facility-related ground disturbance.

BMPs will be used in accordance with the SWPPP for the project to ensure compliance with City and state regulations and are further described in Section 3.3.

Stormwater – Stormwater improvements have been analyzed and designed in accordance with City development standards and the Washington State Department of Ecology (Ecology) 2012 Stormwater Management Manual for Western Washington (Stormwater Manual). The stormwater report prepared for the project is contained in Appendix F. Stormwater from the site will be discharged through manmade conveyances to the Columbia River; therefore, the proposed project is exempt from the flow control minimum requirement. Stormwater treatment technologies will be implemented to treat and monitor stormwater quality in accordance with the required NPDES stormwater permits.

2.23.4.4 Building, Fire, Mechanical and Electrical Permits

City

RCW 19.27, IBC, IMC, IFC, UPC, NEC, Washington State Energy Code, VMC Title 16 and Title 17

The Washington State Building Code Act adopts by reference building and related codes that local jurisdictions must adopt and enforce. Titles 16 and 17 of the VMC establish these requirements in the City. Applications and plans are required to be submitted and reviewed by the City prior to issuing permits.

Project Compliance

It is anticipated that EFSEC will contract with the City of Vancouver for review and issuance of permits under the required code provisions as well as for providing the required inspections and issuance of occupancy permits. The project will be required to submit the required permit applications, building, electrical, mechanical, fire, plumbing, and other plans. All plans will be designed in compliance with the codes referenced above. Application and issuance of building permit applications will be completed following issuance of the site certification agreement.

2.23.5 Industrial Waste Discharge

City

VMC 14.10

The City requires industrial waste discharge permits for the discharge of industrial wastewater to the sanitary sewer system. The permit type will be based on the volume and nature of the discharge. New industrial wastewater dischargers must complete a permit application and submit the application at least 120 days prior to the desired date of discharge and the permit must be obtained prior to commencing discharge.

Project Compliance

It is anticipated that EFSEC will contract with the City of the review and issuance of this permit. As required by VMC 14.10.180, the project will submit an application for a new connection and ensure that a permit is issued prior to discharging to the stormwater system.

2.23.6 Southwest Clean Air Agency Permits and Approvals

2.23.6.1 Air Discharge Permits

SWCAA

Clean Air Act, 33 CFR 154, 40 CFR 60, 40 CFR 60.112b, 40 CFR 61, 40 CFR 63, RCW 70.94 and WAC 173-400-110, WAC 173-401, WAC 173-460, WAC 173-470, WAC 173-474, and WAC 173-490

An air discharge permit is required for the installation and operation of all facilities with the potential for discharge of air pollutants that trigger applicable permitting requirements. Per WAC 463-60-537 a Notice of Construction application is included with this Site Certification Application for criteria pollutant emissions that do not trigger PSD thresholds and for hazardous and toxic air pollutants.

The application includes the requisite narrative, air emission model results, and a BACT analysis in compliance with permitting requirements. See section 5.1 of this application for the air permit and air quality analysis.