

## **Section 2.22 – Analysis of Alternatives**

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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 more expensive 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 for shipment to various consumers and end users located primarily on the West Coast. 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.

Three elements are necessary to develop a facility of this type: 1) a deep draft Port facility; 2) rail infrastructure capable of handling unit trains; and 3) a site large enough to accommodate the various facility elements. 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
- 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. More costly foreign imports would likely make up for declining Alaska North Slope and California crude oil production.