

Pollutant	Averaging Period	Maximum Modeled Concentration	Measured Background Concentration	Maximum Total Concentration	NAAQS	WAAQS
		(µg/m ³)				
CO	Annual	0.1	6	5.9	15	-
	1-hour	87.5	2364	2451.9	40,000	40,000
	8-hour	50.5	1461	1511.5	10,000	10,000

• Note:

Although it is assumed that all PM10 emissions are PM2.5, predicted concentration differ because of the difference in the statistics used to determine compliance with the standard.

The dispersion modeling analysis of the eight TAPs emitted at rates exceeding the SQERs was conducted in the same manner as for the criteria pollutants. TAP emissions estimates for the facility are discussed in Section 5.1.2.2 of the Application and comparison to SQERs is presented in Table 5.1-14.

Maximum TAP concentrations attributable to the facility are compared with Ecology ASILs in Table 3.2-6. Predicted maximum concentrations are less than the Ecology ASILs for all TAPs that are emitted at rates exceeding the SQERs.

Table 3.2-6. Maximum Predicted TAP Concentrations

CAS #	Compound	Maximum Predicted Concentration (ug/m3)	ASIL (ug/m3)
10102-44-0	Nitrogen dioxide	19.5	470
7446-09-5	Sulfur dioxide	28.6	660
57-97-6	7,12-Dimethylbenz(a)anthracene	1.20E-06	1.41E-05
7440-38-2	Arsenic	1.50E-05	3.03E-04
71-43-2	Benzene	2.36E-02	3.45E-02
7440-43-9	Cadmium	8.26E-05	2.38E-04
18540-29-9	Chromium, (hexavalent)	4.19E-06	6.67E-06
N/A	Diesel Engine Particulate	1.45E-03	3.33E-03

3.2.1.9 Title V (Air Operating) Permit

EFSEC implements a Title V (Air Operating) Permit Program through its adoption by reference of Ecology's WAC 173-401-100 through -300, and -500 through -820 (see WAC 463-78-005(2)). The Facility will emit greenhouse gases in amounts greater than 100 tons per year, is defined as a major source, and is therefore required to obtain a Title V permit. Per WAC 173-401-500(3)(c) the Applicant will submit a Title V permit application to EFSEC within 12 months of commencing operation.

3.2.2 Odor

Background odor can likely be attributed to natural sources, diesel-fueled vehicles, and industrial activities in the vicinity of the project site. The site is located along the Columbia River, which may be a source of odors associated with marine activity. Heavy industrial use of adjacent sites may also contribute to the existing odor at the project site.

Construction of the facility ~~would~~will include some activities that would generate odors. If oil based paints are applied to structures or equipment at the site, paint odors may be perceptible nearby. Some of the site ~~would~~will be paved with asphalt, and asphalt fumes may be perceptible for a short period during the paving operation. These impacts are anticipated to be slight and of short duration.

The project as planned will not result in any significant release of offensive odors into the surrounding region. The following design measures will address odor control:

Area 200 – Unloading, and Area 500 – Transfer Pipelines: Throughout the unloading process crude is contained within rail cars and piping prevent the exposure of the oil to the ambient atmosphere. Pumping of the crude from the unloading area to storage and from storage to the Marine terminal is also conducted in piping, and pumping systems, which prevents exposure of the crude to the ambient atmosphere.

Area 300 – Storage: Within the storage tanks, crude oil exposure to the atmosphere is minimized through the use of a floating roof which minimizes the formation of hydrocarbon vapors.

Area 400 – Marine Terminal: As for Areas 200 and 500, transfer of the crude oil to marine vessels is conducted in closed piping and pumping systems that prevent exposure of the crude oil to the atmosphere. A potential source of odors is the vapors that are displaced from the vessel holds during transfer operations. These sulfurous gases (such as H₂S) and petroleum hydrocarbon vapors ~~vented from vessels are to be~~ routed through the vapor containment system to the MVCU. The ~~vapor combustor~~ MVCU will reduce sulfurous compounds to SO₂ gas and convert most hydrocarbons to odorless carbon dioxide. The odor detection threshold of SO₂ is less than below the SO₂ NAAQS, ~~and~~ the local ambient air quality modeling analysis summarized in Section 5 demonstrates that the SO₂ NAAQs threshold this threshold will not be exceeded at any time, and therefore will not result in perceptible odors.

Area 600 – West Boiler, and Area 300 Boiler: Emissions from the boiler units are not expected to cause any significant offensive odors at the Facility or adjacent properties. Although the natural gas supplied to the boilers will be odorized for safety purposes, odor impacts will not be observed because combustion of the natural gas is odorless and the methyl mercaptan used to odorize the gas is destroyed during combustion.

Slight minor odor impacts due to road and rail diesel traffic may occur but will more than likely not be discernible from the background traffic odor impacts in the area.

3.2.3 Climate, Visible Plumes, Fogging, Misting, and Icing

There are no cooling towers proposed for construction at the Facility. Except for infrequent and short visible water vapor plumes from the boilers, no visible plumes are expected from the Facility emissions units. Consequently, no off-site fogging, misting, visibility impairment or icing is expected.

3.2.4 Climate Change

Although most scientists concur that anthropogenic global emissions of greenhouse gases are affecting climate, there are no analytical tools or established procedures for evaluating climate impacts from individual projects.

Ecology estimates 2010 state-wide greenhouse gas emissions were 95.1 million metric tons (CVO_{2e}).¹⁴ As indicated in Section 2.12, the Facility has the potential to emit 136,000 metric tons of greenhouse gases (CO_{2e}) annually. The Facility greenhouse gas emissions are approximately 0.14 percent of the state greenhouse gas emissions. Consequently, the incremental effect of the project on global climate change is insignificant.

3.2.5 Dust

Because the site is flat, there ~~would~~ will be very little grading of the site prior to construction. Therefore, dust generated by excavation and grading ~~would~~ will be short term. Dust from access roads ~~would~~ will be controlled by applying gravel or paving the access road and watering as necessary.

After the Facility is completed and operational, virtually no dust would be generated on site.

3.2.6 Mitigation

- To control dust during construction, water ~~would~~ will be applied as necessary. Site access and travel roads would be graveled or paved.
- BACT ~~would~~ will be incorporated into the Facility design and implemented to minimize air pollution emissions.

¹⁴ Washington Department of Ecology, December 2012. Washington State Greenhouse Gas Emissions Inventory (1990-2010). Publication no.12-02-034.

