Diane Dick

2020 10 04 Comment #5

Washington State Department of Ecology
Olympia, Washington
Re: Formal Comments on Kalama Manufacturing and Marine Export Facility Draft Second Supplemental Environmental Impact Statement, September 2020

Please deny Kalama Manufacturing and Marine Export Facility (KMMEF) a shoreline substantial development and a conditional use permit. The environmental impacts from the project are significant and cannot be mitigated.
Greenhouse gas emissions are insufficiently explained in the draft second supplemental environmental impact statement (SSEIS) and the data contains errors and omissions.
The greenhouse gas emissions from KMMEF marine dock operations are not examined in the DSSEIS and need to be evaluated and added to total project emissions.
The KMMEF marine dock is integral to this refinery project, otherwise we could just refer to it as the NWIW refinery project. However, GHG emissions, from dock operations have not been examined in this draft SSEIS or in the first supplemental environmental impact statement.
The first SEIS simply deferred discussion of marine dock GHGs, different from methanol vessel transport or process emissions, to what was included in the FEIS.
The FEIS states-
"The proposed marine terminal would accommodate the oceangoing vessels that would transport methanol to destination ports. It would also be designed to accommodate other vessel types and, when not in use for loading methanol, would be made available for use as a lay berth where vessels could moor while waiting to use other Port berths or for other purposes." 2.1

"The proposed project also incorporates the use of shore power for the marine terminal. Shore power allows ships to "plug into" electrical power sources on shore. Turning off ship auxiliary engines at berth would reduce ship diesel emissions and result in GHG emission reductions, depending on the source of electric power from the grid. GHG emission reductions from shore power have not been calculated for the proposed project, but studies completed in other locations show reductions of from 25 percent to 50 percent (EPA 2017)." p. 3-35&36

"Marine Terminal Alternatives
The Marine Terminal Alternatives would both result in the same potential impacts to energy and natural resources and are assessed together.
Both Marine Terminal Alternatives would generate demand for electricity for lighting, loading equipment, and the operations shack and dockworker shelter. They would also generate demand for electricity from the use of shore power (also known as "cold-ironing"). Both Marine Terminal Alternative would generate a peak electrical demand of approximately 3 megawatts (accounting for both methanol loading activities and the use of shore power by vessels serving the methanol manufacturing facility and lay berth vessels), and an estimated annual electricity use of approximately 11,000 megawatt-hours based on preliminary engineering estimates. This electricity demand would be negligible compared to the approximately 5 million megawatt-hours of energy sales by the Cowlitz PUD in 2013.

Therefore, the operation of the Marine Terminal Alternatives would not result in significant adverse impacts to energy and natural resources." P. 7-7 & 8

In the analysis of purchased power only power associated with methanol process is examined, not that from shore power required by vessels at berth, estimated to be 72 visits from Panamax methanol tankers and up to 12 other vessels using the dock as lay berth per year. (I will note this area of the river recently acquired additional stern buoys, meaning additional vessels under their own power awaiting berth will be emitting GHGs and air pollutants in the region.)

Looking just at shore power (aka cold-ironing or shore to ship power) use from vessels at berth, the preliminary estimate of 11,000 MW hours annually is likely lowballed. Per EPA GHG calculator this low amount of electricity generates 7,777 metric tons of CO2e. This is more than other GHG emitting activities analyzed in both SEISs.

The peak electrical demand of about 3 megawatts is also of dubious credibility. The first shore power installed at a terminal for tankers in 2009 at Port of Long Beach had a capacity of 8 MW.

"What is claimed to be the world's first oil tanker terminal equipped with shore power to eliminate air emissions from berthed vessels was unveiled this week.
Pier T at the Port of Long Beach, used by BP America affiliate Alaska Tanker Co, has been equipped with a BP shore power installation, which can deliver up to 8 MW at 6,660 v."
http://www.tankeroperator.com/news/first-tanker-cold-ironing-facility-opened/1231.aspx

The Port of Boston commissioned a study to evaluate shore power requirements for various vessels and found power demands ranging from 3.36 MW to 13 MW.
"One Container vessel requires as much power as the largest Logan Airport Terminal (3.36 Megawatts).
Significant peak power demand on electrical grid. Just one cruise ship (Queen Mary 2) requires electrical demand equal to all required power to service all Logan Airport Terminals (13 Megawatts)."
Massport Shore-to-Ship Power Study August 5, 2016
https://globalmaritimehub.com/wp-content/uploads/attach_770.pdf

More recently the California Air Resources Board is determining regulations for emissions from ocean-going vessels at berth. In a lengthy report the following was stated about tanker vessels, "On average, a tanker's auxiliary boiler can require one to several thousand kW of power during pumping operations, while auxiliary power load consumption for regular hotelling operations generally ranges between 700 kW to 1,000 kW per hour (Appendix H). Hotelling times for tankers transporting crude oil range between 5 to 173 hours per visit I-29 5. and the average berthing time for a product tanker is around 48 hours." p. I-29, State of California AIR RESOURCES BOARD PUBLIC HEARING TO CONSIDER THE PROPOSED CONTROL MEASURE FOR OCEAN-GOING VESSELS AT BERTH STAFF REPORT: INITIAL STATEMENT OF REASONS DATE OF RELEASE: OCTOBER 15, 2019 SCHEDULED FOR CONSIDERATION: DECEMBER 5, 2019
https://ww3.arb.ca.gov/regact/2019/ogvatberth2019/isor.pdf

I strongly urge you to review the above CARB report. California is suggesting stricter regulation of vessel emissions at berth from ports with more than 20 ocean-going vessel calls per year.

'CARB staff's proposal to further reduce emissions from ocean-going vessels would require emissions control requirements at any port or independent marine terminal exceeding a specific visit activity threshold. If a port or marine terminal surpasses the 20 visit threshold, they must submit a plan to CARB by the end of the following calendar year describing how they will control emissions from the vessel activity at their facility." P. ES-15
This one new Kalama dock would receive four times the vessel traffic under the California regulation requiring stronger emission controls.

The FEIS statement the Marine Terminal Alternatives are not significantly impactful is false. Please rectify the serious omission of greenhouse gas analysis from vessels at berth at the proposed KMMEF marine dock in the second supplemental EIS.

Thank you,

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