



South Coast Air Quality Management District

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SENT VIA E-MAIL AND USPS:

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Draft Environmental Impact Report (EIR) for the Proposed Berths 167-169 Shell Marine Oil Terminal Wharf Improvements Project (SCH No.: 2015061102)

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comment is meant as guidance for the Lead Agency and should be incorporated into the Final EIR.

SCAQMD Staff's Summary of Project Description

The Proposed Project consists of various improvements to the existing Berths 167-169 to comply with Chapter 31 of the State Building Code Marine Oil Terminal Engineering & Maintenance Standards (MOTEMS), as well as to maintain the Port of Los Angeles' (Port) ability to accommodate long-term fuel imports for the southern California market (Proposed Project). The Proposed Project would include seismic and ground improvements, piping improvements, foundation support structures, wharf demolition and replacement, construction of two mooring dolphins and steel catwalks, replacement of topside equipment, operation of a vapor control system, development of a source control program plan, and execution of a new 30-year lease to 2048¹. Construction is expected to begin in 2018 and would likely take approximately six years².

SCAQMD Staff's Summary of Air Quality and Health Risk Assessment (HRA) Analyses

The Lead Agency quantified the Proposed Project's construction and operational emissions and compared them to SCAQMD air quality CEQA significance thresholds. The CEQA baseline was based on the average conditions that occurred from calendar year 2011 through calendar year 2015 (2011-2015 CEQA baseline year) due to fluctuating throughput during the past several years leading up to calendar year 2015 when the Notice of Preparation for the Proposed Project was circulated³. The Lead Agency found that the Proposed Project's construction emissions would be significant and unavoidable for NOx in construction year three⁴, after incorporating Mitigation Measures AQ-1 through AQ-4. Mitigated overlapping construction and operation emissions would be significant and unavoidable for NOx, PM2.5, and VOC. The Proposed Project's operational air quality impacts were also found to be significant and unavoidable for NOx and VOC in year 2019, year 2031, and year 2048, after incorporating Mitigation Measure AQ-5. Additionally, the Lead Agency proposed two Lease Measures (LM AQ-1 and LM AQ-2) to further reduce criteria pollutant emissions over time. Due to the uncertainties with the future technologies, the proposed Lease Measures were not quantified in the air quality analysis⁵. Lastly, the Lead Agency conducted a

¹ Draft EIR. Executive Summary. Pages ES-9 to 10.

² Draft EIR. Section 3.1, *Air Quality and Meteorology*. Table 3.1-11. Note 8. Page 3.1-43.

³ Draft EIR. Executive Summary. Pages ES-5 to 6.

⁴ Draft EIR. Section 3.1. Table 3.1-13. Note 8. Page 3.1-46.

⁵ Draft EIR. Section 3.1. Page 3.1-58 through 61.

HRA analysis and found that the Proposed Project's individual cancer risk for residential receptors would be 3.4 in a million, which is below SCAQMD threshold of significance for cancer risk of 10 in a million⁶.

General Comments

The Proposed Project plays an important role in supporting the Port's commitment to a zero-emissions goods movement future as outlined in the final San Pedro Bay Ports Clean Air Action Plan 2017 Update (2017 CAAP Update)⁷. The Proposed Project is also critical to achieving timely attainment of the National Ambient Air Quality Standard (NAAQS). On March 3, 2017, the SCAQMD's Governing Board adopted the 2016 Air Quality Management Plan (2016 AQMP)⁸, which was later approved by the California Air Resources Board of Directors on March 23, 2017. Built upon the progress in implementing the 2007 and 2012 AQMPs, the 2016 AQMP provides a regional perspective on air quality and the challenges facing the South Coast Air Basin. The most significant air quality challenge in the South Coast Air Basin is to achieve an additional 45 percent reduction in nitrogen oxide (NOx) emissions in 2023 and an additional 55 percent NOx reduction beyond 2031 levels for ozone attainment.

SCAQMD staff reviewed the Air Quality Analysis and has comments on the CEQA baseline that was used to quantify the Proposed Project's operational emissions. SCAQMD staff also has comments on the air dispersion modeling and the methodology used to determine the Proposed Project's morbidity and mortality impacts. To further reduce NOx emissions, SCAQMD staff recommends revisions to existing Mitigation Measures AQ-1 and AQ-2 and provides additional considerations to Lease Measures AQ-1 and AQ-2 that the Lead Agency should incorporate in the Final EIR. Details are included in the attachment.

Closing

Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), SCAQMD staff requests that the Lead Agency provide SCAQMD staff with written responses to all comments contained herein prior to the certification of the Final EIR. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice (CEQA Guidelines Section 15088(c)). Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful or useful to decision makers and to the public who are interested in the Proposed Project.

SCAQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact me at lsun@aqmd.gov if you have any questions.

Sincerely,

Lijin Sun

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

Attachment
LS/SW
LAC180323-03
Control Number

⁶ Draft EIR. Section 3.1. Page 3.1-66.

⁷ San Pedro Bay Ports. November 2017. *Final Clean Air Action Plan 2017*. Accessed at: <http://www.cleanairactionplan.org/documents/final-2017-clean-air-action-plan-update.pdf>.

⁸ South Coast Air Quality Management District. March 3, 2017. *2016 Air Quality Management Plan*. Accessed at: <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan>.

ATTACHMENT**CEQA Baseline**

1. The Proposed Project's peak daily operational emissions were estimated for the 2011-2015 CEQA baseline year, year 2019, year 2031, and year 2048⁹. The "existing" conditions were based on the average conditions between year 2011 to year 2015. The existing conditions were held constant (i.e. using the emission rates from the 2011-2015 averaged conditions) and were compared to future years (i.e. using emission rates from future years). This approach using a comparison between the Proposed Project's impacts in future years (using emission rates from those years) and a 2011-2015 CEQA baseline improperly credits the Proposed Project with emission reductions that will occur independent of the Proposed Project due to adopted state and federal rules and regulations, since these rules and regulations are expected to improve air quality, even in the absence of the Proposed Project. For example, the California Air Resources Board's (CARB) current regulations for ocean-going vessels and tugboats, for example, are expected to provide substantial near-term and long-term emissions reductions. The strategies for ocean-going vessels, barges, terminal equipment, and harbor craft such as tugboats as outlined in the 2017 CAAP Update¹⁰ are also expected to reduce emissions over time. Therefore, comparing the Proposed Project's future operational emissions to the 2011-2015 CEQA baseline to quantify the Proposed Project's long-term operational air quality impacts may have led to an under-estimation of the Proposed Project's true air quality impacts.

In *Neighbors for Smart Rail v. Exposition Metro Line Construction (2013) 57 Cal.4th 439*, the California Supreme Court held that using a future baseline to determine impact levels is proper in some cases. "[N]othing in CEQA law precludes an agency ... from considering both types of baseline—existing and future conditions—in its primary analysis of the project's significant adverse effects." (*Neighbors for Smart Rail v. Exposition Metro Line Construction Authority (2013) 57 Cal.4th 439, 454.*). "Even when a project is intended and expected to improve conditions in the long term--20 or 30 years after an EIR is prepared--decision makers and members of the public are entitled under CEQA to know the short- and medium-term environmental costs of achieving that desirable improvement. ... [¶] ... The public and decision makers are entitled to the most accurate information on project impacts practically possible, and the choice of a baseline must reflect that goal." (See also *Communities for a Better Environment v. South Coast Air Quality Management Dist. (2010) 48 Cal.4th 310*).

The purpose of CEQA is to disclose environmental impacts from the Proposed Project to the public and decision makers in order to provide the public and decision makers with the actual changes to the environment from the activities involved in the Proposed Project. By taking credit for future emission reductions from existing air quality rules, regulations, and emissions reductions strategies, the Proposed Project's air quality impacts are likely underestimated. Therefore, SCAQMD staff recommends that the Lead Agency revise the operational air quality impact analysis to include a comparison between the operational emissions in year 2019, year 2031, and year 2048 with the Proposed Project and the operational emissions in the same respective years without the Proposed Project, and use this comparison to determine the level of significance for the Proposed Project's operational air quality impacts.

⁹ Draft EIR. Table 3.1-21. Pages 3.1-56 and 57.

¹⁰ San Pedro Bay Ports. *Final Clean Air Action Plan 2017*. Accessed at: <http://www.cleanairactionplan.org/documents/final-2017-clean-air-action-plan-update.pdf>.

Air Quality Analysis

SCAQMD Thresholds of Significance for Overlapping Construction and Operational Activities

2. In Table 3.1-14, the peak daily emissions during the overlapping construction and operational activities were combined and compared to SCAQMD air quality CEQA significance thresholds for construction. According to the SCAQMD's recommended methodology for determining the significance level for air quality impacts from overlapping construction and operational activities, the combined emissions should be compared to SCAQMD's air quality CEQA *operational* thresholds of significance. While revising the Air Quality Analysis based on this comment is not expected to change the significance determination for the overlapping construction and operational air quality impacts, SCAQMD staff recommends that the Lead Agency revise the information in the "significance threshold" row in Table 3.1-14 in the Final EIR.

Morbidity and Mortality Impacts

3. Mortality is a measure of the number of deaths in a population, scaled to the size of that population, per unit time. Morbidity refers to the number of individuals who have contracted a disease during a given time period (the incidence rate) or the number who currently have that disease (the prevalence rate), scaled to the size of the population. The Lead Agency stated that it had "developed a methodology for assessing mortality and morbidity in CEQA documents based on the health effects associated with changes in PM_{2.5} concentrations, which generally follows the approach used by CARB to estimate statewide health impacts from ports and goods movement in California (CARB, 2006b)"¹¹. Based on the morbidity and mortality analysis, the Lead Agency used SCAQMD's PM_{2.5} localized significance criterion of 2.5 µg/m³ and did not conduct a morbidity and mortality analysis. The Lead Agency found the Proposed Project would not exceed SCAQMD's PM_{2.5} localized significance criterion¹².

SCAQMD staff does not agree with using SCAQMD's localized PM_{2.5} threshold as a screening threshold for determining the significance of morbidity and mortality impacts. The SCAQMD's PM_{2.5} significance threshold of 2.5 µg/m³ is designed to determine the significance of localized impacts on nearby sensitive receptors to ensure that sensitive receptors near a project are not adversely impacted by the project's construction and/or operational activities, and it was made to be consistent with existing permitting requirements under SCAQMD Rule 1303. As such, the PM_{2.5} significance threshold of 2.5 µg/m³ was not intended to be used as a screening tool to determine if mortality and morbidity impacts analysis would be warranted. SCAQMD staff recommends that the Lead Agency revise the PM mortality analysis and use the methods described in California Air Resources Board's 2010 guidance document¹³. In addition, the analysis in the Draft EIR did not include a reference to the LAHD's methodology that was used for assessing mortality and morbidity attributable to particulate matter. As such, SCAQMD staff recommends providing a reference to the LAHD's methodology in the Final EIR.

Air Dispersion Modeling

4. The September 2006 to August 2007 meteorological data from the Wilmington Community Station – Saints Peter and Paul School (SPPS) was used in the air dispersion model for both the criteria

¹¹ Draft EIR. Section 3.1. Pages 3.1-24 and 36.

¹² *Ibid.* Pages 3.1-65 and 66.

¹³ California Air Resources Board. August 31, 2010. *Estimate Premature Deaths Associated with Long-term Exposure to Fine Particle Pollution (PM_{2.5}) in California Using a U.S. Environmental Protection Agency Methodology*. Accessed at: https://www.arb.ca.gov/research/health/pm-mort/pm-report_2010.pdf.

pollutants and TACs¹⁴. The U.S. EPA recommends five years of meteorological data, or at least one year of site-specific data or at least three years of prognostic meteorological data for the purposes of air dispersion modeling¹⁵. If one year or more, up to five years, of site-specific data are available, these data are preferred for use in air quality analyses. Depending on completeness of the data record, consecutive years of national weather service, site-specific, or prognostic data are preferred¹⁶. The one-year, site-specific meteorological data used for the Proposed Project was processed in 2013 using the U.S. EPA approved AERMET (version 12345)¹⁷. However, since AERMET (version 12345), four AERMET versions have been released¹⁸. On December 20, 2016, U.S. EPA released AERMET version 16216 for meteorological data processing along with updated Appendix W to fix several known bugs and enhance model prediction. As of April 20, 2018, AERMET version 16216 is still the most recent version. While site-specific meteorological data may be used with the concurrence from SCAQMD staff, the meteorological data used in the Draft EIR does not appear to have been reviewed or validated by SCAQMD staff. Therefore, SCAQMD staff recommends that the Lead Agency provide SCAQMD staff the meteorological data information for validation to ensure that the meteorological data was properly collected and processed in accordance with the applicable SCAQMD procedures. Alternatively, SCAQMD staff has prepared AERMOD-ready meteorological data which could be used by the Lead Agency in the air quality analysis. The AERMOD-ready meteorological data is available for download at the SCAQMD's website¹⁹.

5. Based on a review of Round 1 and Round 2 model runs and the final modeling results in the Draft EIR, SCAQMD staff found that scaling factors were used and that different AERMOD and HARP2 model versions were used. For example, AERMOD version 15181 and HARP2 version 17023 were used in Round 1 model run while AERMOD version 16216r and HARP2 version 17314 were used in Round 2. The final modeling results were the combination of the scaled Round 1 modeling results and Round 2 modeling results from vapor destruction unit. The scaling factors were calculated solely based on the emission increases from the vessel activities.

SCAQMD staff has concerns about this methodology that was used to estimate the Proposed Project's operational air quality impacts for the following three reasons. First, some scaling factors in the "Scaling Factor" spreadsheet appeared to be higher than the scaling factors used in calculating the final modeling results. Therefore, it is not clear why those higher scaling factors, which, if used, would lead to a more conservative analysis, were not used. Second, the scaling factors were applied to Round 1 modeling exercise to estimate the *total* emissions as part of the final modeling results in Draft EIR. There were approximately 1,000 emission sources in the model. Since different emission sources may show different magnitude of changes in emissions (some may increase and some may decrease), a uniform, scaled change in the *total* emissions did not show the actual changes in emissions at the individual emission sources, particularly those that are close to receptors. This may potentially cause an under-estimation of ground level concentrations or risk exposures. Therefore, applying a scaling factor to estimate the total emissions may have over-simplified the Air Quality and HRA analyses and underestimated the Proposed Project's operational air quality impacts and health

¹⁴ Draft EIR. Appendix B2, *Air Dispersion Modeling*. March 2018. Page B2-14.

¹⁵ United States Environmental Protection Agency. February 2000. *Meteorological Monitoring Guidance for Regulatory Modeling Applications*. Page 6-30. Accessed at: <https://www3.epa.gov/scram001/guidance/met/mmgrma.pdf>. See also 40 CFR Part 51. *Revisions to the Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System and Incorporation of Approaches to Address Ozone and Fine Particulate Matter*. Final Rule. January 17, 2017. Accessed at: https://www3.epa.gov/ttn/scram/appendix_w/2016/AppendixW_2017.pdf.

¹⁶ *Ibid.*

¹⁷ Draft EIR. Appendix B2, *Air Dispersion Modeling*. March 2018. Page B2-14.

¹⁸ United States Environmental Protection Agency. *Meteorological Processors and Accessory Programs*. Accessed at: <https://www.epa.gov/scram/meteorological-processors-and-accessory-programs>.

¹⁹ South Coast Air Quality Management District. *Meteorological Data for AERMOD*. Accessed at: <http://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data>.

risks. Third, as stated above, the final modeling results were derived from the modeling results from two model runs (e.g., Round 1 and Round 2), and the two model runs used different model versions. While it was reasonable that Round 1 model run used the older versions of AERMOD and HARP2, the modeling results from Round 1 may not have incorporated the model enhancements in the newer versions of AERMOD and HARP2 which were used to run Round 2. To ensure consistency among model runs and improve reliability of the final modeling results, it is recommended that the Lead Agency re-model the Proposed Project's operational emissions using AERMOD version 16216r and HARP2 version 17314. That way, there will be one model run with one single set of final modeling results without using any scaling factors.

Recommended Changes to Existing Mitigation Measures AQ-1 and AQ-2

6. CEQA requires that the Lead Agency considers mitigation measures to minimize significant adverse impacts pursuant to CEQA Guidelines Section 15126.4 and that all feasible mitigation measures that go beyond what is required by law be utilized. To further reduce the significant and adverse NOx emissions during construction, SCAQMD staff recommends that the Lead Agency incorporate the following changes to Mitigation Measures AQ-1 and AQ-2.

MM AQ-1: Fleet Modernization for Harbor Craft Used During Construction. Harbor craft must use U.S. Environmental Protection Agency (EPA) Tier 3-4 or cleaner engines. In the event that Tier 4 engines are not feasible, the Lead Agency must use U.S. EPA Tier 3 engines and provide information on incentives that the Lead Agency will use to upgrade to Tier 4 or cleaner engines.

This recommended change is consistent with and will further the Ports' strategies to reduce harbor craft emissions and fuel consumption as outlined in the 2017 CAAP Update²⁰.

MM AQ-2: Fleet Modernization for On-Road Trucks Used During Construction. Trucks with Gross Vehicle Weight Rating of ~~19,500~~ 14,000 pounds (lbs) or greater²¹, including import haulers and earth movers, must comply with EPA 2010 on-road emission standards or newer engines. Additionally, consider other measures such as incentives, phase-in schedules for zero and near-zero emission trucks.

Additional Consideration for Lease Measures AQ-1 and AQ-2

7. To further reduce criteria pollutant emissions, the Lead Agency proposed two Lease Measures. Due to the uncertainties associated with the future technologies, the Lease Measures were not included in calculating the Proposed Project's operational emissions²². SCAQMD staff's comments on the Lease Measures are discussed below.

Lease Measure AQ-1

- a) Lease Measure AQ-1 requires periodic review of new technology and regulations once every five years following the effective date of the permit.

Technology is transforming the goods movement industry at a rapid pace. As it continues to advance, the Lead Agency should take this opportunity to develop a pathway to ensure the deployment of the lowest emission technologies possible in the life of the Proposed Project. To facilitate the deployment with the most updated information on technology, SCAQMD staff

²⁰ San Pedro Bay Ports. *Final Clean Air Action Plan 2017*. Section 1.8: *Harbor Craft*. Page 72. Accessed at: <http://www.cleanairactionplan.org/documents/final-2017-clean-air-action-plan-update.pdf>.

²¹ California Air Resources Board. November 13, 2014. Accessed at: <https://www.arb.ca.gov/msprog/onrdiesel/documents/multirule.pdf>.

²² Draft EIR. Table 3.1-21. Pages 3.1-58 and 59.

recommends that the Lead Agency assess equipment availability, equipment fleet mixtures, and best available emissions control devices *every two to five years* beginning two years after the Proposed Project is approved, and specify performance standards for the technology assessment. A frequent and regular technology and regulations review, based on a well-designed review process that identifies key participants, performance standards, and timelines, helps facilitate and expedite a zero-emissions goods movement future as envisioned in the 2017 CAAP Update.

Lease Measure AQ-2

- b) Lease Measure AQ-2 requires the tenant to conduct a feasibility study, develop at-berth vessel emissions capture and control system pilot study, if it is found to be feasible, and implement the control systems based on the results identified in the pilot study.

SCAQMD staff supports the development and implementation of control systems to further reduce criteria pollutant emissions and encourages the Lead Agency to involve the public and interested agencies such as the SCAQMD and the CARB in developing the at-berth vessel emissions capture and control system pilot study.