



South Coast Air Quality Management District

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Robert Kanter, Ph.D.
Director of Planning
Port of Long Beach
925 Harbor Plaza
Long Beach, CA 90802

Dear Dr. Kanter:

Notice of Preparation of a Draft Environmental Impact Report for Pier S Marine Terminal and Back Channel Improvements Project

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above document. The proposed project is a massive port modification with construction emissions expected to occur over three years and operational emissions that will include additional ships, harbor craft, locomotives, and trucks. To be consistent with the recently approved Clean Air Action Plan CAAP and the regional air quality plan, it is imperative that air pollution impacts be appropriately quantified and communicated, and that the project implement all achievable control strategies. This is particularly important since the proposed project is in a non-attainment area, adjacent to already-impacted communities.

The SCAQMD staff encourages the Lead Agency to design the project and to evaluate alternatives that will minimize air quality impacts such as maximizing the use of on-dock rail. The SCAQMD staff believes that use of on-dock rail can significantly reduce and possibly eliminate the need for transport of containers by on-road trucks to near and off-dock intermodal yards. In the CAAP, the ports committed to evaluate changed rail operating procedures (such as transporting unsorted containers out of the region to railyards remote from residential areas) as a means of maximizing space for on-dock rail. Based on the project description the proposed facility will have the static capacity to accommodate forty double stack rail cars. The proposed facility, however, will also be designed with up to 27 truck lanes at the primary and secondary gate complex indicating that, as proposed, there will still be a significant number of intermodal truck trips associated with the facility.

The SCAQMD recommends that when evaluating exposure and impacts of diesel particulate emissions, the EIR analysis include a health risk assessment to quantify cancer and non-cancer health impacts from diesel particulate emissions from ships, harbor craft, locomotives, intermodal equipment, trucks, and any other stationary or mobile diesel combustion sources. In addition, the SCAQMD staff recommends that the Draft Environmental Impact Statement/Environmental Impact Report (DEIS/EIR) use the SCAQMD's health risk significance thresholds which are based on the maximum individual cancer risk (MICR) which is the highest of either the maximum exposed individual resident or the maximum exposed individual worker. Please refer to Attachment I for additional information regarding the methodology for conducting this health risk assessment.

It is expected that a project of this magnitude will be regionally significant with potentially significant health impacts. Consistent with CEQA Guidelines §15126.4, projects that exceed the SCAQMD significance thresholds must implement all feasible mitigation. In addition, the Project Specific Standards in the CAAP committed to implement the maximum available controls and feasible mitigations for any emissions increases. It should also be noted that mitigation measures are needed to ensure that the proposed Pier S project will not conflict with or obstruct implementation of the Air Quality Management Plan. Attachment I contains feasible control measures that are consistent with the CAAP.

Finally, if projected emissions after application of all feasible mitigation measures to equipment associated with the proposed project still create significant air quality impacts, additional mitigation measures must be applied to control sources as close to the project as feasible. If this is not possible through direct requirements, a feasible implementation mechanism would be a mitigation fee with revenues used to implement emission reduction projects. The SCAQMD staff would like to work with the Lead Agency to provide any needed assistance to develop a mitigation program to ensure that all feasible measures are implemented to reduce air quality and health impacts to levels less than significance, and to ensure that the proposed project is consistent with the CAAP's Project Specific Standards for risk threshold and implementation of maximum controls for criteria pollutants. In addition, the Lead Agency should include a quantitative analysis to demonstrate how the proposed project and its cumulative effect with the CAAP and other adopted/implemented measures will allow for the timely achievement of the San Pedro Bay Standards. It is essential that the San Pedro Bay Standards be finalized for this purpose. In addition, a mechanism must be created to ensure that operation under long-term leases and other extended contractual agreements will be consistent with long-term air quality needs. Finally, we recommend that the lead agency establish a mechanism to require implementation not only of CARB-certified control technologies, but also future control technologies that achieve greater levels of control.

Attached are detailed comments regarding the analysis of potential air quality impacts from the proposed project that should be included in the DEIS/EIR. Please send the SCAQMD a copy of the DEIS/EIR upon its completion. In addition, please send with the DEIS/EIR all appendices or technical documents related to the air quality analysis and electronic versions of all air quality modeling and health risk assessment files. The SCAQMD staff appreciates the opportunity to comment on this project. If you have any questions, please call me at (909) 396-3105.

Sincerely,

Susan Nakamura
Planning Manager

Attachment

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LAC070130-08LI
Control Number

Attachment I

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. Alternatively, the lead agency may wish to consider using the California Air Resources Board (CARB) approved URBEMIS 2002 Model. This model is available on the SCAQMD Website at: www.aqmd.gov/ceqa/models.html.

The Lead Agencies should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from construction and demolition, and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, dredging, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

When analyzing impacts from both construction and operation, SCAQMD guidance is to calculate peak daily impacts for a project. This concept is consistent with CEQA guidance to analyze the severity of impacts (Remy and Thomas, et al. 1999). By analyzing peak daily impacts, this affords the public with information on the maximum potential impacts that could affect residents living in the vicinity of the project and provides full disclosure to the public regarding impacts from a project, which is one of the basic tenets of CEQA. In addition, the SCAQMD staff believes that annual emissions must also be included to disclose potential impacts that are not addressed with a daily emissions analysis.

PM2.5 Analysis

The SCAQMD has developed a methodology for calculating PM2.5 emissions from construction and operational activities and processes. In connection with developing PM2.5 calculation methodologies, the SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD requests that the lead agency quantify PM2.5 emissions and compare the results to the recommended PM2.5 significance thresholds. Guidance for calculating PM2.5 emissions and PM2.5 significance thresholds can be found at the following internet address: http://www.aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html. Again, SCAQMD staff believes that annual emissions must also be included to disclose potential impacts that are not addressed with daily emissions analysis.

Localized Significance Thesholds

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead

agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at <http://www.aqmd.gov/ceqa/handbook/LST/LST.html>.

Health Risk from Diesel Particulate Emissions

It is recommended that the lead agencies conduct a health risk assessment to account for diesel particulate emissions impacts from ships, harbor craft, locomotives, cargo handling equipment, and diesel fueled trucks. Guidance for performing a mobile source health risk assessment (“Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis”) can be found on the SCAQMD’s CEQA webpages at the following internet address:

http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html.

Regarding significance thresholds, the SCAQMD staff recommends that the Lead Agency use the SCAQMD’s thresholds of significance for toxic air contaminants. For carcinogenic health impacts, the SCAQMD considers impacts to be significant if the incremental maximum individual cancer risk is greater than or equal to 10 in one million. For non-carcinogenic health impacts, the SCAQMD considers impacts to be significant if incremental Hazard Index is greater than or equal to one. The maximum individual cancer risk or MICR is the highest of either the maximum exposed individual resident or the maximum exposed individual worker.

Occupational exposures are calculated utilizing shorter exposure assumptions (40 versus 70 years). In addition, the SCAQMD staff recommends that the exposure duration for school children be 70 years.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures, including measures not required by existing regulations, be utilized during project construction and operation. In addition, the Project Specific Standards in the CAAP committed to implement the maximum available controls and feasible mitigations for any emissions increases. It should also be noted that mitigation measures are needed to ensure that the proposed Pier S project will not conflict with or obstruct implementation of the regional Air Quality Management Plan. The lead agencies must also include a quantitative analysis to demonstrate how the proposed project and its cumulative effect with the CAAP and other adopted/implemented measures will allow for the timely achievement of the San Pedro Bay Standards. In addition to evaluating direct air quality impacts, the Draft EIS/EIR should also account for any indirect or secondary air quality impacts associated with implementation of mitigation measures. In addition, to the San Pedro Bay Ports CAAP, other feasible mitigation measures for the proposed project can be found in the following resources:

- Chapter 11 of the SCAQMD CEQA Air Quality Handbook for sample air quality mitigation measures.
- SCAQMD’s CEQA webpages at the following internet address:
www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html.
- SCAQMD’s Rule 403 – Fugitive Dust, and the Implementation Handbook contain numerous measures for controlling construction-related emissions that should be considered for use as CEQA mitigation if not otherwise required.
- SCAQMD’s Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address:
<http://www.aqmd.gov/prdas/aqguide/aqguide.html>.

- California Air Resources Board's Air Quality and Land Use Handbook: A Community Perspective, which can be found at the following internet address:
<http://www.arb.ca.gov/ch/handbook.pdf>. Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D).

Consistent with CAAP, the following feasible mitigation measures should be implemented for locomotives, harbor craft, ships, on-road vehicles, and off-road equipment:

- *Locomotives*: Require line-haul locomotives operating in and out of the port to phase-in between 2012 and 2014 line-haul locomotives equipped with diesel particulate filters (DPF) and selective catalytic reduction (SCR) systems or equivalent.
- *Locomotives*: Require use of switch locomotives achieving 90% level of control of particulates and NOx by 2011. Feasible technologies include hybrid or "multi engine" switchers using non-road engines to generate electric power, DPFs, SCR, oxidation catalysts.
- *On-Road Trucks*: The following implementation hierarchy is recommended:
 1. Meet the 2010 on-road emission standard for NOx (0.2 g/bhp-hr) and for PM (0.01 g/bhp-hr); or
 2. If not commercially available for all on-road trucks used for construction activities to meet the 2010 standard, such trucks shall use LNG (exceeding 2007 on-road standard for NOx and PM).
 3. If not commercially available for on-road trucks to use LNG, such trucks shall at least meet the 2007 standard of 1.2 g/bhp-hr for NOx and 0.01 g/bhp-hr for PM.
 4. Only if the above approaches are determined to be not commercially available, use of 2003 or later model year trucks retrofitted with the highest level of CARB-verified NOx and PM control devices is recommended.
- *Fleet Modernization for On-Road Trucks*: Implement fleet modernization schedule for on-road trucks consistent with CAAP measure HDV-1.
- *Off-road equipment*: For off-road equipment and yard equipment, implement control strategy consistent with CAAP CHE-1.
- *Vessel Speed Reduction*. Implement vessel speed reductions of 12 knots within 40 nautical miles from Point Fermin to the Precautionary Area.
- *Harbor craft*: Require all harbor craft to meet EPA Tier-2 standards for harbor craft or meet equivalent reductions, as well as to require no later than 5 years or when they first become available, all previously re-powered harbor craft to retrofit with the most effective CARB verified/verifiable NOx and PM emissions reduction technologies.
- *Ship, Main Engine, and Boiler Fuel Improvement Program*.¹ Require low-sulfur fuel in the main engines within 40 nautical miles of Point Fermin at the following annual participation rates:
 - 2007 to 2009 – use of marine fuel in all main engines with a maximum sulfur content of 0.2%.
 - 2010 and after – use of marine fuel in all main engines with a maximum sulfur content of 0.1%.
- *Ship Auxiliary Engines*. Require use of shore-side power or alternative technologies capable of achieving 90% reduction in NOx and PM for 100% of calls by 2011.
- *Ship Main Engines*. All main engines on vessels making ship calls at the proposed project shall:

¹ Use of low-sulfur fuel for auxiliary engines already required under CARB's rule.

- if new vessels, be equipped with SCR or equivalent; existing vessels to retrofitted if feasible; and
- all main engines shall be equipped in combination with slide valves, water injection, or other technology capable of achieving NOx reduction of at least 60%, and PM reduction of at least 30%.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's World Wide Web Homepage (<http://www.aqmd.gov>).

The SCAQMD is willing to work with the Lead Agency to ensure that project-related emissions are accurately identified, categorized, and evaluated. Please call Charles Blankson, Ph.D., Air Quality Specialist, CEQA Section, at (909) 396-3304 if you have any questions regarding this letter.