



# South Coast Air Quality Management District

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February 17, 2006

Dr. Robert Kanter  
Director of Planning and Environmental Affairs  
The Port of Long Beach  
P.O. Box 570  
Long Beach, CA 90801

Dear Dr. Kanter:

## **Notice of Preparation of a Draft Environmental Impact Report for Long Beach Middle Harbor Redevelopment Project**

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. Thank you for extending the comment period to February 17, 2006. The SCAQMD staff understands the importance of efficient port activity and goods movement and acknowledges the Port of Long Beach's efforts in recognizing its air pollution problems. The Long Beach Middle Harbor Redevelopment Project is a project of great magnitude, with projected increases in annual vessel calls, truck trips, trains, and cargo handling two to three fold over 2005 levels. A proposed project of this magnitude requires careful analysis to ensure that air quality and public health impacts are understated and mitigated in compliance with CEQA.

It is imperative that the Port of Long Beach take proactive steps to implement the cleanest pollution control measures to ensure that air quality and public health impacts from port-related activities do not worsen. The seven clean air technologies identified in the NOP are not sufficient to fully mitigate air quality impacts from the proposed project. The proposed project must use the cleanest technologies feasible for *all* equipment in order to mitigate identified significant impacts. As you know, lead agencies may not approve projects as proposed if there are feasible alternatives or mitigation measures available which would substantially lessen the significant environmental impacts of the project (Public Resources Code § 21002).

We submit the following comments regarding the analysis of potential air quality impacts, mitigation measures and project alternatives that must be included in the Draft Environmental Impact Report (DEIR). Additional comments relating to the air quality analyses, data sources and mitigation guidance are included in Attachment I.

*Characterization of Emissions.* The SCAQMD staff has reviewed and provided comments to the Port of Long Beach on its Draft Air Quality and Risk Assessment Analysis Protocol for Proposed Projects at the Port of Long Beach dated October 17, 2005. These SCAQMD staff comments are incorporated herein by reference. In addition, the lead agency must conduct a thorough health risk assessment to quantify the potential health risks from sources associated with the proposed project and its alternatives in accordance with the comments we have provided on the Draft Risk Assessment Protocol.

*Mitigation Measures:* A list of feasible mitigation measures for the operational phase of the proposed project is provided in Attachment II. The port must require implementation of these measures by all applicable sources unless substantial evidence supports a finding that implementation of a measure is not feasible. In such a case, the measure must be implemented to the extent feasible. Lead agencies may not approve projects as proposed if there are feasible alternatives or mitigation measures available which would substantially lessen the significant environmental impacts of the project. (Pub. Res. Code §21002). Also, an EIR must respond to the specific suggestions for mitigating a significant environmental impact unless the suggested mitigation is facially infeasible. (Los Angeles Unified School District v. City of Los Angeles (1997) 58 Cal. App. 4<sup>th</sup> 1019, 1029). The Lead Agency must utilize all tools available to implement these measures including, but not limited to permit lease agreements. Mitigation measures must allow the Port of Long Beach to periodically review and update environmental requirements to the extent feasible and reflective of developing control technologies. (San Franciscans for Reasonable Growth vs. City and County of San Francisco (1989) 209 Cal. App. 3d.1502).

*Alternatives:* The proposed modifications to Pier E will increase the capacity of the on-dock intermodal rail yard. The proposed project should maximize use of an on-dock facility and use of an alternative container ground delivery system. An on-dock facility is more efficient as cargo is loaded directly from the ships to the trains, eliminating heavy-heavy duty diesel truck trips and lessening environmental effects of the proposed project. Likewise, an alternative non-diesel container ground delivery system would reduce significant air quality impacts.

*Clarification Regarding Number of Truck Trips and TEUs.* There appears to be a discrepancy between the number of truck trips and TEUs in the NOP. The SCAQMD staff requests that the Draft EIR contain an explanation between the relationship between the number of TEUs, containers and truck trips. In addition, the number of TEUs that will be moved from the terminal via truck which are based on a percentage of total TEUs appears to be inconsistent with the total number of TEUs presented in Table 1.

The SCAQMD staff appreciates the opportunity to comment on this proposed project. Please send the SCAQMD a copy of the Draft EIR upon its completion. In addition, please send with the Draft 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 plans on commenting on the Draft EIR, including selection of the most appropriate of the project alternatives contained in the analysis. If you have any questions, please call me at (909) 396-3105.

Sincerely,

Susan Nakamura  
Planning Manager

LAC051223-02  
Control Number

## Attachment I

The SCAQMD staff recommends that the lead agency follow the procedures, guidelines and methodologies described below to assess potential air quality and health impacts from the proposed project.

### 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, lead agency may wish to consider using the California Air Resources Board (CARB) approved URBEMIS 2002 Model to estimate emissions. This model is available on the SCAQMD Website at: [www.aqmd.gov/ceqa/models.html](http://www.aqmd.gov/ceqa/models.html).

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases and overlapping phases of the project, and all air pollutant sources related to the project. Air quality impacts from both construction and operations should be calculated. Construction-related air quality impacts for this type of project will typically include, but are not limited to, emissions from the use of heavy-duty equipment from dredging, excavating, filling, 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, marine vessels, locomotive emissions, intermodal equipment, emissions from stationary sources (e.g., generators, boilers, internal combustion engines), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust) including delivery trucks.

CEQA Guidelines Sections 15130 and 15355 require lead agencies to evaluate cumulative impacts, i.e., emissions from the proposed project as well as those from existing or approved projects in the immediate vicinity of the proposed project.

Consistent with the SCAQMD's environmental justice enhancement I-4, in October 2003, the SCAQMD Governing Board adopted a methodology for calculating localized air quality impacts and 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>.

Regarding health risk assessment, SCAQMD staff has developed guidelines for estimating emissions from railyards and for conducting health risk assessments as part of

the Rule 3503 – Emissions Inventory and Health Risk Assessments for Railyards. <http://www.aqmd.gov/hb/2005/051027a.html>. SCAQMD staff recommends that the lead agency utilize these guidance documents when estimating the health risks from the proposed project. In addition, the SCAQMD staff recommends that the lead agency refer to the SCAQMD's "Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis" which 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](http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html). An analysis of all toxic air contaminant impacts due to the decommissioning or use of equipment potentially generating such air pollutants should also be included.

**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>).

## **Attachment II Mitigation Measures**

### **Construction Impacts**

Since the proposed project is expected to generate significant adverse air quality impacts, CEQA requires that all feasible mitigation measures be utilized during project construction and operation. 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. Other measures to reduce air quality impacts from land use projects can be found in the 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>.

Pursuant to state CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed.

### **Operational Impacts**

The following mitigation measures will be technologically feasible by the end of the first phase of construction. The port must require implementation of these measures by all applicable sources unless substantial evidence supports a finding that implementation of a measure is not feasible. (Cal. Pub. Res. Code §§21081, 21081.5). In such a case, the measure must be implemented to the extent feasible. To the extent that the port determines that a measure is not feasible due to cost considerations, the port must conclude based on substantial evidence that no means are feasible for the port, source operators, or others to fund implementation of such measure.

### **Ocean Going Vessels**

- Require use of 0.1% (1,000 ppm) sulfur or lower in fuel for both main and auxiliary engines
- Require all marine vessels to meet at least 80 percent reduction from current IMO NOx standards and use of advanced PM controls
  - SCR for the main and auxiliary engine (NOx)
  - Scrubber for main and auxiliary engine (PM)
- Require all marine vessels to comply with Vessel Speed Reduction programs to 40 nautical miles
- For marine vessels not using shore-side power, require the use of alternative technologies that will achieve the same or greater emission reductions as shore-side power

*Interim mitigation measures to be implemented only if the above are found to be infeasible at the time the proposed project will be implemented.*

- Require all marine vessels to implement one or more of the following NOx and PM strategies
  - Use of repowering of Category I and II marine engines to meet proposed Tier III standards (NOx and PM)

- Diesel particulate filters for auxiliary engines (PM)
- Slide valve technologies for main and/or auxiliary engines (NOx and PM)
- Water injection for main and/or auxiliary engines (NOx)
- Emulsified fuels main and/or auxiliary engines (NOx and PM)
- Air humidification main and/or auxiliary engines (NOx)

### **Harbor Craft**

- Require retrofit of existing harbor craft with DPF, DOC, and SCR
- Require full use of shore-side power for harbor craft

### **Cargo Handling Equipment**

- In lieu of rubber tired gantry cranes, require use of electrified land-based container gantry cranes
- Use of non-diesel alternative fueled cargo handling equipment

### **Rail**

- Require all locomotives to meet at a minimum a Tier 3 standard or alternative that would achieve the same or greater emission reduction in NOx and diesel particulate matter
- Require all diesel-electric locomotives to use CARB diesel fuel (15 ppm)
- Require use of LNG for Class I line-haul locomotives serving the proposed project or regulate diesel locomotives to utilize SCR and diesel particulate filters or a technology that would achieve equivalent emission reductions
- Require switchers to be battery-hybrid, LNG, or multi-diesel engine, or utilize SCR and diesel particulate filters
- Require anti-idling devices set to shut-down the locomotive within 15 minutes or less

### **Heavy Duty Trucks**

- On-dock rail for all containers destined outside of the region
- Require all trucks to meet or exceed the 2007 on-road heavy-duty truck standards for NOx and PM through one of the following approaches:
  - Use of trucks that meet the 2007 emission standard; or
  - Retrofit existing trucks with Diesel Particulate Filters (DPF) (PM) and retrofit heavy-duty diesel vehicle with NOx catalysts (NOx); or
  - Use of alternative fuels such as LNG
- Require use of electrified truck spaces for all truck parking or queuing areas
- Implement stricter truck idling measures

### **Sources for Additional Mitigation Measures**

The following mitigation measures will be technologically feasible by the end of the first phase of construction. The port must require implementation of these measures by all applicable sources unless substantial evidence supports a finding that implementation of a measure is not feasible. (Cal. Pub. Res. Code §§21081, 21081.5). In such a case, the measure must be implemented to the extent feasible. To the extent that the port determines that a measure is not feasible due to cost considerations, the port must conclude based on substantial evidence that no means are feasible for the port, source

operators, or others to fund implementation of such measure. Additional mitigation measures for emissions from intermodal facilities can be found in:

- SCAQMD's "Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis". March 28, 2003. [http://www.aqmd.gov/ceqa/handbook/mobile\\_toxic/mobile\\_toxic.html](http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html)
- Riverside Air Quality Task Force "Good Neighbor Guidelines", September 12, 2005. <http://www.wrcog.cog.ca.us/publications/Good+Neighbor+Policies+Final-091205.pdf>
- Port of Los Angeles, "Report to Mayor Hahn and Councilwoman Hahn by the No Net Increase Task Force", June 24, 2005. [http://www.portoflosangeles.org/Board/Presentations/091405\\_NNI\\_Study.pdf](http://www.portoflosangeles.org/Board/Presentations/091405_NNI_Study.pdf)
- California Environmental Protection Agency, "Draft Emission Reduction Plan for Ports and International Goods Movement in California", December 1, 2005. [http://www.arb.ca.gov/planning/gmerp/dec1plan/cover\\_toc.doc](http://www.arb.ca.gov/planning/gmerp/dec1plan/cover_toc.doc)



# South Coast Air Quality Management District

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February 15, 2006

Dr. Robert Kanter  
Director of Planning and Environmental Affairs  
The Port of Long Beach  
P.O. Box 570  
Long Beach, CA 90801

Subject: Review of *Draft Air Quality and Risk Assessment Protocol for Proposed Projects at the Port of Long Beach Dated October 17, 2005*

Dear Dr. Kanter:

Thank you for the opportunity to review the document titled, *Air Quality and Risk Assessment Analysis Protocol for Proposed Projects at the Port of Long Beach Dated October 17, 2005*. The South Coast Air Quality Management District (SCAQMD) staff has reviewed the revised Health Risk Assessment (HRA) protocol prepared by the Port and has the following comments and suggestions. Staff reserves the right to comment on HRAs prepared by the Port as part of future California Environmental Quality Act documents.

## **General Comments**

1. Reference Recent South Coast Air Quality Management District (AQMD) Guidance – The following two guidance documents developed recently by AQMD staff should be referenced and followed in the protocol:
  - a. *Supplemental Guidelines for Preparing Risk Assessments to Comply with the Air Toxics “Hot Spots” Information and Assessment Act (AB2588)*. The document is available at: [http://www.aqmd.gov/prdas/AB2588/pdf/AB2588\\_Guidelines.pdf](http://www.aqmd.gov/prdas/AB2588/pdf/AB2588_Guidelines.pdf). This document is a supplement to OEHHA’s document entitled, “Air Toxics Hot Spots Program Risk Assessment Guidelines” (referred to as the OEHHA Guidelines). Facilities required to submit risk assessments to the AQMD must follow the OEHHA Guidelines. While the information provided in the OEHHA Guidelines is complete, there are several areas in which the user is referred to their local air districts for specific or additional requirements. This supplemental guidance addresses those and other issues that have arisen during the implementation of the AB2588 Program and various AQMD toxic rules.

- b. *Health Risk Assessment Guidance for Railyards and Intermodal Facilities.*  
The document is contained in the October Board package for Rule 3503 (agenda item #27). The document provides dispersion modeling and health risk assessment guidance for railyard and intermodal facilities.
2. **PM<sub>2.5</sub> Impacts** – The criteria pollutant, PM<sub>2.5</sub>, is not considered in the protocol. The protocol must address PM<sub>2.5</sub> emissions and impacts. AQMD staff is in the process of developing PM<sub>2.5</sub> CEQA significance thresholds for both regional and localized impact analyses. Staff intends to bring the recommendation to the Governing Board in the early summer time frame after seeking stakeholder input.
3. **Mitigation Measures** – If air quality or health risk impacts are found to be significant, the Port must require implementation of mitigation measures by all applicable sources unless substantial evidence supports a finding that implementation of a measure is not feasible. (Cal. Pub. Res. Code §§21081, 21081.5). The following documents contain feasible mitigation measures that the Port must consider for projects with significant air quality impacts. In addition, the AQMD staff will identify additional mitigation measures during the review of a specific proposed project.
  - SCAQMD’s “Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis”. March 28, 2003. [http://www.aqmd.gov/ceqa/handbook/mobile\\_toxic/mobile\\_toxic.html](http://www.aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html)
  - Riverside Air Quality Task Force “Good Neighbor Guidelines”, September 12, 2005. <http://www.wrcog.cog.ca.us/publications/Good+Neighbor+Policies+Final-091205.pdf>
  - Port of Los Angeles, “Report to Mayor Hahn and Councilwoman Hahn by the No Net Increase Task Force”, June 24, 2005. [http://www.portoflosangeles.org/Board/Presentations/091405\\_NNI\\_Study.pdf](http://www.portoflosangeles.org/Board/Presentations/091405_NNI_Study.pdf)
  - California Environmental Protection Agency, “Draft Emission Reduction Plan for Ports and International Goods Movement in California”, December 1, 2005. [http://www.arb.ca.gov/planning/gmerp/dec1plan/cover\\_toc.doc](http://www.arb.ca.gov/planning/gmerp/dec1plan/cover_toc.doc)

### **Specific Comments**

1. Page 5, section 5.0. Quantification of project emissions for the air quality analysis for CEQA documents should include project related emissions for both indirect and direct sources that affect California. For example, if the proposed project will create an increase in truck trips where deliveries would be outside of the SCAB, the emissions from the increase in truck trips from the project site to the edge of California should be included in the air quality analysis. Emission estimates for the HRA would be limited to those emissions that occur within the property lines of the proposed project.
2. Page 6, section 5.0. For rules adopted or amended after the EMFAC2002 model was developed, the effect of future requirements can be accounted for in the future emission estimates provided the methodology and assumptions used is reviewed and approved by the local and state air quality agencies. This is to ensure that there is not

a discrepancy regarding how future emission reductions are accounted and that there is potential double counting of emission reductions.

3. Page 7, section 5.1, first two sentences at the top of the page – Make sure emission factors from ARB’s OFFROAD model for the years of interest represent fleet averages and not model year emission factors for those years. The second paragraph on page 7 implies that the authors are aware that the OFFROAD model is for model year engines and not fleet averages, but it should be made clearer in the discussion. CARB can provide emission factors that are representative of the overall fleet-mix for a specific equipment type and size category, or the Port use OFFROAD emission factors representative of their specific fleet for a specific equipment type and size category and model year. The second approach will allow the Port to tailor the fleet of equipment used in a specific project based on the useful life of each piece of equipment used at the Port.

It is unclear what is meant in the first paragraph where it is stated that “These estimates often need to be modified/capped because equipment typically lasts longer than CARB projects, leading to unreasonably high emission rates due to deterioration.” The AQMD staff does not recommend modifying the OFFROAD emission rates for a specific piece of equipment. The AQMD staff would like to discuss this issue further.

In addition the second paragraph states, “Deterioration rates identified in the OFFROAD model will be applied annually for each of the years in the life cycle that vehicles operated at the terminal.” Again, the AQMD staff does not recommend applying deterioration rates in the OFFROAD model. The emission factors and emission estimates in the OFFROAD have incorporated deterioration rates. If for example the project will replace cranes every five years, the emission factor from the OFFROAD model would be used every fifth year.

4. Page 11, section 6.2, sentence 2 – Remove “sensitive”; the sentence should read as follows: “ ... represent concentrations at off-site locations ...”
5. Page 12, section 7.1.2 – The methods discussed in this section should mention the AQMD’s supplemental risk assessment guidelines mentioned in General Comment #1.
6. Page 9, section 5.5. The protocol should address how idling assumptions for heavy-duty trucks. Although CARB’s recent idling regulation would limit idling to 5 minutes, it is appropriate to assume that a heavy-duty truck will have multiple idling events for a project. For example, the truck may idle 5 minutes at the check-in gate, unloading, parking, check-out, etc.
7. Page 11, last sentence – Add the word “specific” as follows: “Project-specific cancer risks and hazard indices ...”
8. Page 12, first sentence – Add the word “related” as follows: “Cumulative hazard indices will be calculated based on the incremental emissions associated with the project and future related projects only.
9. Page 14, source parameter discussion for ocean-going vessels (OGVs) – OGVs can be treated as a series of point, area, or volume sources. The subject protocol is

considering either a point or volume source treatment. Either treatment is acceptable. However, ARB's concurrence should be sought since ARB uses an area source treatment for OGVs in their report titled, *Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach*. In addition, if OGVs are treated as a series of point sources, then the approach must address potential building downwash effects.

10. Pages 14-15, source parameter discussion for locomotives, trucks, and personal vehicles – AQMD staff recently developed guidance for Rule 3503 (see General Comment #1); it should be followed here.
11. Page 15, section 7.3 – Wilmington meteorological site is preferable for a Port of Long Beach impact assessment. It was used by ARB in their Port HRA and is proposed for use by the Port of Los Angeles for their expansion projects.
12. Page 16, section 7.4 – It should be noted that AQMD's supplemental risk assessment guidelines (see General Comment #1) provide spacing guidance for fence-line receptors.
13. Page 17, section 7.5.1, sentence 4 – “background emissions” should be “background concentrations”
14. Page 18, section 7.6.1 – The AQMD's supplemental risk assessment guidelines (see General Comment #1) should be mentioned and followed in the protocol.
15. Page 20, section 8.0, paragraph 2 – The paragraph is inconsistent with the first sentence on page 12 (see specific comment #5). This approach is more conservative than the approach expressed in the first sentence on page 12, since everything is automatically cumulatively significant. The policy expressed in the first sentence on page 12 would be acceptable. This is how the AQMD, as a lead agency, evaluates cumulative air toxic impacts.

If you have any questions, please contact Jill Whynot of my staff at (909) 396-3104 on HRA related questions and Susan Nakamura at (909) 396-3105 on CEQA related questions.

Sincerely,

Elaine Chang, Dr.PH  
Deputy Executive Officer  
Planning, Rule Development and  
Area Sources

SN:JW:TC:tc122205

cc: Elaine Chang, AQMD  
Tom Chico, AQMD

Peter Greenwald, AQMD  
Jean Ospital, AQMD  
Susan Nakamura, AQMD  
Steve Smith, AQMD  
Jill Whynot, AQMD