



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • [www.aqmd.gov](http://www.aqmd.gov)

E-MAILED: July 15, 2011

July 15, 2011

Ms. Terri Rahhal, City Planner, [Rahhal\\_Te@sbcity.org](mailto:Rahhal_Te@sbcity.org)  
Community Development Department  
City of San Bernardino  
300 North "D" Street, 3<sup>rd</sup> Floor  
San Bernardino, CA 92418

## **Draft Environmental Impact Report (Draft EIR) for the Proposed Palm/Industrial Distribution Center Project**

The South Coast Air Quality Management District (AQMD) appreciates the opportunity to comment on the above-mentioned document and the lead agency's willingness to consider late comments. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final CEQA document.

The AQMD staff is concerned that operational health risks from diesel trucks operating at the proposed project site are potentially under reported in the Draft EIR. The AQMD staff is also concerned that localized operational air quality impacts were not estimated in the Draft EIR considering that 612 daily truck trips will operate at the proposed project site in close proximity to sensitive receptors (i.e., residences located approximately 500 feet east from the project site). In addition, construction air quality impacts from on- and off-road equipment used in exporting soil each day from the proposed project site are also potentially under estimated in the Draft EIR. Detailed comments are included in the attachment to this letter. The AQMD staff further recommends changes to the mitigation measures proposed in the Draft EIR to reduce potential project impacts and health risks.

Pursuant to Public Resources Code Section 21092.5, please provide the AQMD with written responses to all comments contained herein prior to the adoption of the Final Environmental Impact Report. The AQMD staff is available to work with the Lead Agency to address these issues and any other air quality questions that may arise. Please contact Gordon Mize, Air Quality Specialist – CEQA Section, at (909) 396-3302, if you have any questions regarding these comments.

Sincerely,

A handwritten signature in black ink that reads "Ian V. MacMillan".

Ian MacMillan  
Program Supervisor, Inter-Governmental Review  
Planning, Rule Development & Area Sources

IM:GM

SBC110510-01  
Control Number

## ***AIR QUALITY IMPACTS DURING OPERATIONS***

### **Health Risk Assessment (HRA) Modeling Analysis Emission Factors**

1. The emission factors presented in Appendix B of the HRA prepared by PBS&J were input incorrectly into the AERMOD model. For example, for the source labeled “Onsite Entrance to South Docks”, the emission factor for each volume source along the route was calculated to be  $3.613 \times 10^{-5}$  grams per second. This calculation assumed there are 62 volume sources in the line source. As calculated in the spreadsheet in Appendix B of the HRA, the overall emission factor for the line source is  $2.24 \times 10^{-3}$  grams per second, 62 times higher than each individual volume source. However, in the AERMOD output file included in Appendix C, the individual volume source emission factor of  $3.613 \times 10^{-5}$  grams per second was input as the emission factor for the entire line source. The AERMOD software then divided this emission factor by 62 again to yield a final rate of  $5.827 \times 10^{-7}$  grams per second for each individual volume source. This rate used in the AERMOD model is therefore 62 times too low. Equivalent errors were found for all other sources in the model. In addition, for the source titled, “On-road Trucks to Entrance”, the emission factor from Appendix B is reported as  $1.459 \times 10^{-5}$  grams per second per volume source but was entered as  $1.459 \times 10^{-6}$  grams per second per volume source in the model, which is 10 times lower than the spreadsheet in Appendix B. These errors may yield significant underestimation of risk, on the order of a factor of 50.

In the revised analysis, the lead agency should also consider the impact of recent rulemaking regarding heavy duty diesel trucks from the California Air Resources Board. While the errors identified above substantially underestimate the risk, the new requirements for diesel trucks not fully considered in the HRA may at least partially offset this risk.

AQMD staff recommends that the lead agency adjust the source parameters and revise the HRA. Should significant risks be identified, all measures should be implemented to reduce this risk to the maximum extent feasible (see comment #8 below).

### **Localized Significance Thresholds Analysis**

2. In the Section 4.2 Air Quality, the lead agency estimated project localized construction air quality impacts but did not quantify localized operational impacts. On page 4.2-22 in Section 4.2 Air Quality, the lead agency states, in part, that “LSTs are applicable for construction emissions of CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. LSTs do not apply to emissions during operation of the proposed project.” This statement that localized impacts only apply to construction air quality impacts is incorrect and contrary to AQMD guidance. By not estimating operational air quality impacts from trucks and other equipment operating at the site, e.g., queuing, moving about, idling, etc., the lead agency has not demonstrated that long-term project impacts to sensitive receptors located near the site are less than significant. AQMD staff recommends that

the lead agency follow the guidance for performing a localized air quality analysis for operations that can be found at the following web address:

<http://www.aqmd.gov/ceqa/handbook/LST/LST.html>. These results should be compared with the applicable localized significance thresholds for operations and be incorporated into the Final EIR.

### **Idling Times**

3. The HRA analysis assumes each truck will idle only 5 minutes per day onsite. Due to the high volume of trucks, and the very likely possibility of queuing during entrance and exit from the facility, AQMD staff recommends that the revised HRA include up to 15 minutes of total idling onsite per truck (5 minutes entering, 5 minutes exiting, and 5 minutes at the dock). If the lead agency chooses not to make this revision, it should include mitigation measures that will ensure this additional idling activity will not occur.

### **Mitigation Measures - Operations**

4. Based on information in the Draft EIR and in comments above, the proposed project operations present a significant impact for NO<sub>x</sub> and may present a significant health risk from diesel particulate matter. In addition to the mitigation measures starting on page 4.2-31 in the Draft EIR, AQMD staff recommends the following additional measures to reduce these impacts to a less than significant level, where applicable and feasible:

Recommended Mitigation:

- Require that trucks serving the project use existing technology to reduce exhaust emissions, such as diesel particulate filters (DPF) and selective catalytic reduction (SCR). As an example, other warehousing projects in the area have committed to only allowing 2010 compliant trucks onsite (Banning Business Park), and the Mira Loma Commerce Center required 100% of its truck fleet to meet 2007 standards. In addition, the Ports of Los Angeles and Long Beach have also implemented a schedule by which trucks operating at their sites will be restricted as described above.
- If the lead agency presents substantial evidence that the above measure is infeasible, require tenants that do not already operate 2007 and newer trucks to apply in good faith for funding to replace/retrofit their trucks, such as Carl Moyer, VIP, Prop 1B, or other similar funds. Should funds be awarded, the tenant should also be required to accept and use them.
- Place signage onsite reminding drivers that idling of diesel vehicles is limited to 5 minutes.
- Create a buffer zone of at least 300 meters (roughly 1,000 feet), which can be office space, employee parking, greenbelt, etc. between the warehouse/distribution center and sensitive receptors.

- Design the warehouse/distribution center such that any check-in point for trucks is well inside the facility property to ensure that there are no trucks queuing outside of the facility. The current design appears to only allow approximately 6 trucks between the guardhouse and the street. The lead agency should demonstrate how the facility can handle all queuing onsite with over 300 trucks entering per day.
- Design the warehouse/distribution center to ensure that truck traffic within the facility is located away from the property line(s) closest to its residential or sensitive receptor neighbors.
- Restrict overnight parking in residential areas;
- Establish overnight parking within the warehouse/distribution center where trucks can rest overnight.
- Establish area(s) within the facility for repair needs.
- Post signs outside of the facility providing a phone number where neighbors can call if there is a specific issue.
- Develop, adopt and enforce truck routes both in and out of city, and in and out of facilities.
- Have truck routes clearly marked with trailblazer signs, so trucks will not enter residential areas.
- Identify or develop secure locations outside of residential neighborhoods where truckers that live in the community can park their truck, such as a Park & Ride.
- Provide food options, fueling, truck repair and or convenience store on-site to minimize the need for trucks to traverse through residential neighborhoods.
- Re-route truck traffic by adding direct off-ramps for the truck or by restricting truck traffic on certain sensitive routes.
- Improve traffic flow by signal synchronization.
- Use water sweepers that comply with SCAQMD Rules 1186 and 1186.1;
- Alternative fueled off-road equipment;
- Require facility operator to become a Smart Way Partner upon start of operations; and
- Require facility operator to incorporate incentives and requirements such that at least 90% of all truck trips will be carried by Smart Way 1.0 or greater carriers within the shortest time frame feasible (e.g., 3 years).

## ***AIR QUALITY IMPACTS DURING CONSTRUCTION***

### **On-Road Emissions From Soil Export**

5. On page 4.2-28 in the Air Quality Section, the lead agency has included in its assumptions soil export during grading of approximately 200,000 cubic yards of soil. The lead agency also states that the URBEMIS2007 land use model was used to estimate construction air quality impacts including the soil export impacts. Construction estimates including those from soil export were included in Table 4.2-9. Upon review of Appendix B – Air Quality Data including the URBEMIS2007 land

use computer model output sheets, the on-road hauling emissions associated with soil export were not included in the model run used to create Table 4.2-9. An alternative model run presented in Appendix B yields up to 504 pounds per day of NOx. Therefore the lead agency should re-evaluate this potential impact and report the peak day soil haul emissions assuming soil cannot be exported to the proposed SANBAG project nearby unless an enforceable mitigation measure requiring this export destination is included in the FEIR. These impacts from soil export should be included in the regional construction emission table footnotes, the narration or otherwise accounted for in the Final EIR. Otherwise, regional construction impacts from the soil export activities would be underestimated and may represent an undisclosed potentially significant impact.

### **Fugitive Dust Emissions From Construction Activities**

6. The URBEMIS2007 model outputs presented in Appendix B include a variety of mitigation measures to control fugitive dust, including many identified in Tables 4.2-5 and 4.2-6 of the DEIR. Unfortunately, due to a known calculation error within the URBEMIS2007 model<sup>1</sup>, applying all mitigation measures results in spuriously high dust control efficiencies (e.g., about 94% for this project). In order to correct this error, AQMD staff recommends that the lead agency only include the single highest control measure in the URBEMIS model run. Depending on each project, this would be either the application of water 3 times per day or chemical suppressants. The higher resultant PM10 emissions may exceed AQMD's regional thresholds and should be reported in the FEIR.

In addition, in the modeling analysis used to evaluate localized construction impacts, the fugitive dust emissions were assumed to occur across a 171,610 square meter (approximately 42.4 acres) site. However, the URBEMIS model run used to generate PM10 emissions assumed that only 3.92 acres would be disturbed per day. The emission rate is therefore underestimated by a factor of 10.8 ( $42.4/3.9 = 10.8$ ). The modeling analysis should be adjusted to include this higher emission rate for an area source located at the closest point to nearby residences in order to demonstrate potential worst case impacts.

### **Construction Fleet Mix**

7. The URBEMIS model run used to estimate construction emissions during grading assumed that in a peak day approximately 7,926 cubic yards of soil would be exported from the site. At 20 cubic yards per truck, this requires nearly 400 trucks per day. With this extensive earth movement, the default construction fleet is 1-grader, 1-dozer, and 1-loader is likely substantially too small to accomplish this task. In the revised air quality analysis, the lead agency should reevaluate the fleet mix and provide updated air quality emissions estimates.

---

<sup>1</sup> [www.aqmd.gov/ceqa/models.html](http://www.aqmd.gov/ceqa/models.html)

### **Construction Mitigation Measures**

8. The lead agency has determined that construction air quality impacts will exceed the SCAQMD's daily significance threshold for PM10 fugitive dust. The AQMD recommends the following changes and additional mitigation measures (next page) for consideration by the lead agency to further reduce fugitive dust impacts from the project, if applicable and feasible. Additional mitigation measures can be found at [http://www.aqmd.gov/ceqa/handbook/mitigation/MM\\_intro.html](http://www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html).

#### **Mitigation Measure PR4.2B**

##### Recommended Changes:

- Limiting the amount of area disturbed to ~~10 acres per day or less~~ the acreage specified in the URBEMIS modeling
- Application of soil stabilizers in inactive construction areas according to manufacturer's recommendations
- Cover ~~or have water applied to the exposed surface of~~ all trucks hauling dirt, sand, soil, or other loose materials prior to leaving the site to prevent dust from impacting the surrounding areas
- Sweep streets adjacent to the project site at the end of the day if visible soil material is carried over to adjacent paved roads (recommend water sweepers with reclaimed water)

##### Recommended Additions:

- Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM10 generation.
- Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph
- Prohibit truck idling in excess of five minutes

#### **Mitigation Measure MM4.28**

- The developer shall require by contract specifications that construction equipment be EPA Tier 2 rated or higher emissions standards according to the following schedule adopted by other lead agencies in the South Coast Air Basin:
  - April 1, 2010, to December 31, 2011: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 2 off-road emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 2 or Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

- January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
- Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
- A copy of each unit's certified tier specification, BACT documentation, and CARB or AQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.

For additional measures to reduce off-road construction equipment and other construction related emissions, the following mitigation measure tables are located at the following website: [www.aqmd.gov/ceqa/handbook/mitigation/MM\\_intro.html](http://www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html).