



# South Coast Air Quality Management District

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September 3, 2013

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## **Review of the Draft Environmental Impact Report (Draft EIR) for the Proposed Pelican Industrial Project - SCH. No. 2013031020**

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

In the project description, the Lead Agency proposes the construction and operation of up to 600,000 square feet of light industrial and high-cube warehouse distribution center uses on an approximate 31-acre site. The project would include two separate buildings: Building One would be an approximately 480,000 square foot high-cube warehouse/distribution center with 105 dock doors and Building Two would be an approximately 120,000 square foot general light industrial building (115,000 square feet of warehouse and 5,000 square feet of office space) and 23 dock doors. The Draft EIR estimates that approximately 346 trucks would operate at the site each day. Site preparation would include 600 cubic yards of debris and vegetation removal and grading would involve 55,300 cubic yards of cut and fill, which would be balanced on-site. Construction of Building One would start in January 2015 with operations starting in 2017. Construction of Building Two could begin in 2019 based on market conditions. For analysis purposes, both buildings were evaluated with operations starting in 2017.

The SCAQMD staff appreciates the inclusion of mitigation measures that can reduce air quality impacts. However we request that additional feasible mitigation be implemented to reduce remaining significant regional operational air quality impacts as determined in the Draft EIR. In addition, we are concerned about some of the methods used in the air quality analysis for construction and operational air quality and health risk impacts. The Draft EIR has used non-standard parameters throughout portions of the analysis that should be revised in the Final EIR to be consistent with recommended guidance. Details regarding these comments and others are provided in the attachment.

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

Sincerely,



Ian MacMillan  
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IM:GM

RVC130717-04  
Control Number

### Health Risk Assessment Methodology

1. SCAQMD staff appreciates that the lead agency conducted a Health Risk Assessment (HRA) to determine potential impacts to nearby residents from this project. The HRA indicates that risks would be less than significant from this project. However, several parameters used to conduct the HRA modeling used methods that are incorrect and/or non-standard. We request that the lead agency correct these methodological errors prior to determining the significance of this impact. Should impacts be found significant, additional feasible mitigation should be applied to reduce this risk to a less than significant level.

- a. The calculation of diesel particulate matter emission rates for trucks on the road in Appendix B of the HRA uses an equation that contains an error. As an example, this equation yields an emission rate for T7 trucks of 4.02 E-06 g/s. The equation is below:

$$0.0517 \text{ g/mi} \times 180 \text{ trucks/day} \times \mathbf{60 \text{ m}} \times 0.0006214 \text{ mi/m} \times 1/24 \text{ day/hr} \times 1/3600 \text{ hr/s}$$

The equation above indicates that trucks only travel **60 meters** in the modeling analysis, however they actually travel approximately 2800 m in the model. This equation and subsequent risk calculations should be corrected in the Final EIR.

- b. The truck categories used in the HRA to determine emission rates from the EMFAC 2011 model are T6 Public (medium heavy duty) and T7 public (heavy heavy duty). These truck categories are inappropriate for typical warehouses as the 'public' fleet trucks are those that are owned by government agencies. More appropriate categories to use for medium heavy duty trucks are 'T6 instate heavy' for 3 axle trucks and 'T6 instate small' for 2 axle trucks as these are more typically used in commercial applications. Heavy heavy duty trucks should use 'T7 tractor' for instate deliveries, 'T7 OOS' for out of state deliveries, and 'T7 POLA' for deliveries directly to/from the ports. If the breakdown of delivery locations is unknown at this time, the most conservative emission rate should be used within the T6 and T7 categories.
- c. Truck speeds assumed in the HRA analysis are unclear. Table B of the HRA states that 30 mph emission rates are used while a table in Appendix B of the HRA states that 40 mph was used. The Final EIR should clarify this discrepancy and use the most appropriate speed given roadway speed limits. The Final EIR should also discuss if lower onsite speeds (e.g., <15 mph), potentially with higher emission rates, would impact the HRA analysis and determination of significance under CEQA.

- d. The HRA determines the percentage of diesel trucks based on values contained in the URBEMIS land use software. This software is outdated and SCAQMD staff recommends that it no longer be used. The percentage of diesel trucks should be obtained from EMFAC 2011, thus ensuring a consistent data source with emission rates. As an example, for the 2020 calendar year, approximately 82% of T6 trucks are diesel powered, while the HRA assumes only 30% and 70% for 2-axle and 3-axle trucks, respectively.
- e. The idling emission rates presented in Appendix B of the HRA do not match with values SCAQMD staff obtained from the EMFAC 2011 web tool<sup>1</sup>. The Final EIR should evaluate the rates used in the HRA and update them as necessary.

### **Air Quality Analysis - Operations**

#### **Truck Trip Rate/Fleet Mixture**

2. In the air quality analysis modeling (California Emissions Estimator Model - CalEEMod) used to estimate project air quality impacts, the Lead Agency assumed a non-default trip rate of 1.68 per 1,000 square feet of building space for the high-cube warehouse land use (Land Use Code 152) based on the ITE Trip Generation Manual (2012), 9<sup>th</sup> Edition. Based on the CalEEMod User's Guide's direction<sup>2</sup> and absent an occupant-specific traffic study, the AQMD staff recommends that the Lead Agency revise the operational emissions and health effects estimates using the recommended CalEEMod default trip rate value of 2.59 in the Final EIR for the high-cube warehouse use portion of the project. Using the recommended CalEEMod rate would the possibility of underestimating potential air quality impacts. This estimate would yield 438 daily truck trips compared to the Lead Agency's estimate of approximately 346 daily trips using the 1.68 trip rate. Using the Draft EIR's lower trip rate may potentially underestimate project operational emissions as well as health effects from on-road trucks. Should the Lead Agency choose to use the lower rate, then project conditions of occupancy should be added to ensure that the project is limited to the specified lower number of vehicles analyzed in the air quality analysis.

Further, based on Table 4-1 in the Traffic Study, the proposed project assumes that only 20.43% of the proposed project's total trips are generated by trucks. Absent occupant specific data, guidance from the CalEEMod User's Guide recommends the project assume User Guide's 40% trucks<sup>3</sup> (as a percentage of overall vehicle trips) as a more appropriate assumption for the proposed land use to avoid underestimating the number of trucks visiting the warehouse facilities.

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<sup>1</sup> Accessed 9/3/2013. <http://www.arb.ca.gov/msei/modeling.htm>

<sup>2</sup> CalEEMod User Guide Appendix E3

<sup>3</sup> Ibid.

### **Preclusion of Transport Refrigeration Units (TRUs)**

3. Based on a review of the project's emissions calculations (see Appendix B: Air Quality and GHG Emissions Calculations/Health Risk Assessment - CalEEMod Output Sheets) it appears that the Lead Agency determined the project's air quality and health effect impacts using emission factors for unrefrigerated warehouses/truck activity. However, in mitigation measures MM Air 15 and MM 2-1, the Lead Agency refers to the potential use of TRUs. The SCAQMD staff therefore recommends that the Lead Agency include a mitigation measure that precludes the use of refrigerated warehousing at the project site or revise the air quality analysis to account for emissions from refrigerated warehouse uses. Further, if the Lead Agency chooses to include refrigerated warehouses in the air quality and health effect analyses, then MM 2-1 should remain in place for the Final EIR.

### **Air Quality Analysis - Construction**

#### **Off-Road Equipment Load Factors**

4. In the air quality analysis, the Lead Agency estimated project construction air quality impacts using the CalEEMod land use model, Version 2011.1.1. This model provides default values and allows user-defined overrides to estimate emissions based on the expected land use. The model run for the Draft EIR's air quality analysis modified the default settings for the load factors for off-road equipment, reducing each by about one third, effectively lowering the emissions calculated from these sources by one third. For example, the CalEEMod default load factor for a tractor / loaders / backhoe is 0.55; rubber tired dozer is 0.59; and a scraper is 0.72. In the air quality analysis, the Lead Agency used 0.40 as a load factor for rubber tired dozer; a load factor of 0.37 for a tractor / loaders / backhoe; and 0.48 for a scraper. This one-third reduction is based on an incorrect interpretation of ARB's conclusion that overall statewide emissions are reduced by one-third. This recommendation does not extend to project specific analysis. The one-third reduction is not recommended by the SCAQMD staff without substantial evidence to support their use. Rather, if the project proponent wishes to take advantage of updates to the statewide offroad equipment inventory, the Final EIR should use the most recent version of CalEEMod<sup>4</sup>, which incorporates the full OFFROAD2011<sup>5</sup>.

### **Mitigation Measures for Operational Air Quality Impacts (Mobile Sources)**

5. In Table 4.2-6 in the Air Quality Section, the Lead Agency's operational air quality analysis demonstrates significant air quality impacts from NOx emissions, which are primarily from on-road vehicle trips associated with the proposed project. The SCAQMD staff therefore recommends the following changes and additional

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<sup>4</sup> Version 2013.2 is available at the following website: <http://www.CalEEMod.com>.

<sup>5</sup> OFFROAD 2011 shows that additional parameters affect emissions besides load factor, and that some equipment-specific emission factors can be either higher or lower than the OFFROAD 2007 emission factors used in CalEEMod.

transportation related mitigation measures to reduce the project's significant air quality impacts in addition to those measures listed in the Draft EIR starting on pages 4.2-13 and 4.2-21.

- a. Require the use of 2010 compliant diesel trucks, or alternatively fueled, delivery trucks upon project build-out. If this isn't feasible for all trucks visiting the site, consider requiring this only of tenant owned trucks. Should this be found infeasible, other measures should be considered such as incentives, phase-in schedules for clean trucks, etc.
- b. Have truck routes clearly marked with trailblazer signs, so that trucks will not enter residential areas.
- c. Improve traffic flow by signal synchronization.
- d. Provide food options, fueling, truck repair, overnight parking, and or convenience stores on-site to minimize the need for trucks to traverse through residential neighborhoods.
- e. Electrify service equipment at facilities (e.g., forklifts and yard hostlers). Where it is not feasible for equipment to be electrically powered the Lead Agency should ensure that it is not fueled by diesel.
- f. Promote clean truck incentive programs (see the discussion above regarding Cleaner Operating Truck Incentive Programs), and
- g. Provide electric vehicle (EV) Charging Stations (see the discussion below regarding EV charging stations).

#### **Alternative Fueled Truck Phase-In Schedule**

6. Given that the proposed project will generate significant regional emissions, the Lead Agency should require mitigation that requires accelerated phase-in for non-diesel powered trucks. For example, natural gas trucks, including Class 8 HHD trucks, are commercially available today. Natural gas trucks can provide a substantial reduction in health risks, and may be more financially feasible today due to reduced fuel costs compared to diesel. In the Final EIR, the Lead Agency should consider requiring a phase-in schedule for these cleaner operating trucks to reduce project impacts. SCAQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency and project applicant.

#### **Electric Vehicle (EV) Charging Stations**

7. Trucks that can operate at least partially on electricity have the ability to substantially reduce the significant NOx impacts from this project. Further, trucks that run at least partially on electricity are projected to become available during the life of the project as discussed in the 2012 Regional Transportation Plan. It is important to make this electrical infrastructure available when the project is built so that it is ready when this

technology becomes commercially available. The cost of installing electrical charging equipment onsite is significantly cheaper if completed when the project is built compared to retrofitting an existing building. Therefore, the SCAQMD staff recommends the Lead Agency require each warehouse and other plan areas that allow truck parking to be constructed with the appropriate infrastructure to facilitate sufficient electric charging for trucks to plug-in. Similar to the City of Los Angeles requirements for all new projects, the SCAQMD staff recommends that the Lead Agency require at least 5% of all vehicle parking spaces (including for trucks) include EV charging stations<sup>6</sup>. Further, electrical hookups should be provided at the onsite truck stop for truckers to plug in any onboard auxiliary equipment. At a minimum, electrical panels should appropriately sized to allow for future expanded use.

### **CNG Fueling Station and Convenience Site**

8. As described in the Draft EIR, the proposed project is projected to generate significant regional NOx operational impacts. It is therefore important that the Lead Agency implement measures that could reduce emissions sooner rather than later. The SCAQMD staff therefore recommends that the Lead Agency ensure the availability of alternative fueling facility (e.g., natural gas) to serve the project site prior to operation of additional logistics warehousing within the project area.

### **Project Impacts Higher due to Proximity of Existing Sensitive Receptor**

9. The proposed project allows heavy duty trucks to access the site by driveways located on Nance Street and Markham Street. A single-family residence is located less than 25 meters northwest of the project site on Nance Street (approximately 150 feet from the closest planned truck loading area). If the Lead Agency determines that localized air quality impacts are significant, CEQA Guidelines §15126.4 states that all feasible mitigation must be implemented to reduce these impacts, even if the mitigated impact remains significant. The Lead Agency should consider the use of buffer zones as recommended in the state Air Resources Board's Land Use Handbook.<sup>7</sup> This buffer should also apply to any undeveloped sensitive receptors that may be sited in the future next to the Pelican Industrial project site area.

### **Mitigation Measures for Operational Air Quality Impacts (Other Area Sources)**

10. In addition to the mobile source mitigation measures identified above the Lead Agency should incorporate the following onsite area source mitigation measures below to reduce the project's overall significant regional air quality impacts from NOx emissions during operation. These mitigation measure should be incorporated pursuant to CEQA Guidelines §15126.4

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<sup>6</sup>[http://ladbs.org/LADBSWeb/LADBS\\_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf](http://ladbs.org/LADBSWeb/LADBS_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf)

<sup>7</sup>Air Quality and Land Use Handbook is available at: <http://www.arb.ca.gov/ch/landuse.htm> .

- a. Maximize use of solar energy including solar panels; installing the maximum possible number of solar energy arrays on the building roofs and/or on the Project site to generate solar energy for the facility.
- b. Require all lighting fixtures, including signage, to be state-of-the art and energy efficient, and require that new traffic signals have light-emitting diode (LED) bulbs and require that light fixtures be energy efficient compact fluorescent and/or LED light bulbs. Where feasible use solar powered lighting.
- c. Maximize the planting of trees in landscaping and parking lots.
- d. Use light colored paving and roofing materials.
- e. Utilize only Energy Star heating, cooling, and lighting devices, and appliances.
- f. Install light colored “cool” roofs and cool pavements.
- g. Limit the use of outdoor lighting to only that needed for safety and security purposes.
- h. Require use of electric or alternatively fueled sweepers with HEPA filters.
- i. Use of water-based or low VOC cleaning products.