



# South Coast Air Quality Management District

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SENT VIA USPS AND E-MAIL:

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## **Mitigated Negative Declaration (MND) for the Proposed San Bernardino Logistics Center**

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

### Project Description

The proposed project would include the construction of a 450,000-square-foot warehouse building on a 20.3-acre vacant site in the southern portion of the City of San Bernardino. Based on the information in the Project Description, the proposed project would be surrounded by residences to the east, west, and north. A diesel truck repair shop is located south of the project site. Truck loading docks and bays would be located on the southern end of the warehouse building.

### Air Quality and Health Risk Assessment Analyses

The SCAQMD staff has concerns about the air quality and health risk analyses in the MND. First, there was inconsistent information presented in the MND, making the review of the MND difficult. Second, the modeling performed for this project was based on improper assumptions. These have likely led to an under-estimation of the project's air quality and health risk impacts. Additional details are included in the attachment. The attachment also includes a list of recommended mitigation measures which the Lead Agency should implement and include in the Final MND.

Please provide SCAQMD staff with written responses to all comments contained herein prior to the adoption of the Final MND. The SCAQMD staff is available to work with the Lead Agency to address these issues and any other air quality and health risk assessment questions that may arise. Please contact Jack Cheng, Air Quality Specialist – CEQA IGR Section, at (909) 396-2448, if you have any questions regarding these comments.

Sincerely,

*Lijin Sun*

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

Attachment

JW:LS:JC

SBC170310-05

Control Number

## ATTACHMENT

### Inconsistencies

1. Based on a review of the information presented in the MND, the SCAQMD staff found that there were inconsistencies throughout the MND and the supporting appendices. The inconsistencies are related to warehouse size, trip rates, and vehicle fleet mixture; thereby making the analyses difficult to follow and understand (see Table 1). Therefore, it is recommended that the Lead Agency correct these inconsistencies in the Final MND and supporting appendices.

**Table 1 Inconsistencies in Vehicle Fleet Mixture throughout the MND and Appendices**

% Cars	2-Axle Trucks % LHD	3-Axle Trucks % MHD	4-Axle Trucks % HHD	Total Truck %	Location of Information
78.5	8	4	9.5	21.5	HRA Coords& EmRates1.xlsx – Table – Trip Gen
86	2	0	12	14	Appendix A-2 CalEEMod Printouts
79.6	3.4	4.6	12.4	20.4	Appendix E_Traffic Report – Table D – Project Trip Generation Based of Fontana Truck Trip Generation Study

### Siting Warehouses near Residences

2. Based on the information in the MND and an aerial map inspection, the nearest sensitive receptor is within 25 meters north of the project site<sup>1</sup>. While the SCAQMD staff recognizes that there are many factors Lead Agencies must consider when making local planning and land use decisions, staff is concerned about the proximity of a warehouse to the existing residences and the potential long-term air quality impacts to the people living near the project site and along the truck routes as a result of increased truck activities. As a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land-use decision making process, the California Air Resources Board (CARB) has provided the CARB Air Quality and Land Use Handbook (CARB Land Use Handbook). Based on guidance from the CARB Land Use Handbook, CARB recommends a buffer of at least 1,000 feet between land uses that will have 100 or more trucks per day.<sup>2</sup>

### Air Quality Analysis

#### Daily Truck Trip Rate

3. In the MND, the Lead Agency used a 0.343 daily truck trip rate<sup>3</sup> by using the Institute of Transportation Engineers (ITE) recommended 1.68<sup>4</sup> overall daily trip generation rate for high cube warehouse land use and did not use the ITE recommended 0.64 daily truck trip rate to estimate daily truck trips. Consistent with ITE Manual<sup>5</sup> and SCAQMD Governing Board direction, the SCAQMD staff recommends using the truck trip rates from the ITE for high cube warehouse projects located in the South Coast Air Basin, i.e., 0.64 daily truck trips per thousand square feet of warehouse space. Further, since prospective tenants and specific traffic information are unknown at this time, the

<sup>1</sup> Mobile Source Health Risk Assessment

<sup>2</sup> CARB Air Quality and Land Use Handbook: <http://www.arb.ca.gov/ch/handbook.pdf>. Guidance is for siting new sensitive land uses within 1,000 feet of a distribution center, Page 4. The buffer is a neutral mitigation measure provided to minimize truck activity emission impacts to sensitive receptors. Besides truck activity of more than 1,000 trucks per day, this guidance applies to distribution centers that accommodate more than 40 transport refrigeration units per day or where TRU operations will exceed 300 hours per week truck activities and sensitive receptors (page 4).

<sup>3</sup> 0.343 daily truck trip rate was derived by subtracting 1.337 passenger vehicle trip rate from the ITE's 1.68 total daily trip rate (1.68-1.337=0.343).

<sup>4</sup> Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition (2012) per thousand square feet of floor area for high cube warehouse (Land Use 152), Pages 267 and 273.

<sup>5</sup> ITE, 9th Edition, Land Use 152 High-Cube Warehouse/Distribution Center 152, Weekday Weighted Average Truck Trip Generation Rate of 0.64 trip ends per 1,000 square feet.

SCAQMD staff recommends revising the MND using the 0.64 rate instead of the 0.343 truck trip rate to serve as a more conservative estimate of project truck trips and air quality impacts.

#### Vehicle Fleet Mixture Percentages

4. In the MND, the Lead Agency used the City of Fontana Truck Trip Generation Study (Fontana Study) to estimate project's air quality operational impacts. The Fontana Study fleet mixture percentages are 3.46 percent of the total fleet for 2-axle Trucks; 4.64 percent for 3-axle trucks; and 12.33 percent for 4-axle and larger trucks with truck categories totaling 20.43 percent of the total vehicle fleet. Passenger vehicles would therefore comprise 79.57 percent of total vehicles during operations. The SCAQMD staff recommends that the Lead Agency adjust the CalEEMod fleet mixture truck subcategories by using the ITE recommended 0.64 daily truck trip rate. See Table 2 for additional details and methodology.

**Table 2**

<b>% Cars</b>	<b>2 –Axle Trucks LHD</b>	<b>3-Axle Trucks MHD</b>	<b>4-Axle Trucks HHD</b>	<b>Total Truck</b>	<b>Source</b>
NA	16.67% (3.4/20.4)	22.55% (4.6/20.4)	60.78% (12.4/20.4)	100%	Fontana Truck Trip Generation Study Mixture
62				38% (0.64 Truck Trips/1.86 Total Trips)	ITE Trip Generation (9 <sup>th</sup> Edition) Land Use 152 – “High Cube Warehouse”
62	6.4% (16.67% x 38)	8.6 % (22.55% x 38)	23% (60.78% x 38)	38%	SCAQMD Recommended Vehicle Fleet Mixture Percentage based on the Fontana Truck Trip Fleet Mixture and the ITE recommended trip generation rates

#### Health Risk Assessment (HRA)

5. Dock loading idling emissions were modeled as individual point sources at seven idling locations along the planned loading docks (STCK4 – 10). Similar to Source ID IDLING1 – IDLING7, the SCAQMD staff recommends that the Lead Agency revise the HRA using a line volume source that spans the entire dock area to ensure that impacts are properly analyzed or provide a rationale to justify the assumptions used.
6. On-site travel emissions are not accounted for in the HRA. By not including on-site travel emissions, the Lead Agency has likely underestimated health risks. The SCAQMD staff recommends that the Lead Agency revise the HRA and use a series of volume sources to account for the on-site travel emissions of DPM.
7. The HRA analysis involved the use of separate discrete receptors placed randomly. The SCAQMD staff recommends that the Lead Agency revise the HRA and use a receptor grid of no more than 100-meter spacing over the existing residences and areas zoned or planned for residential development, in order to ensure that the maximum impacts to a residential receptor are properly analyzed. Receptor locations should be placed at the boundaries of the residential property and not the residential structure. Placing receptors on the residential structure underestimates cancer risks to the residents. The SCAQMD staff recommends that the Lead Agency revise the model and start the grid at the property boundaries to ensure potential maximum concentrations are identified.

8. All receptor “Flagpole Heights” were set to 2 meters. The SCAQMD modeling guidance advises that all receptors should be set to a height of 0.0 meters (default), so that ground-level concentrations are analyzed.<sup>6</sup> The SCAQMD staff recommends that the Lead Agency revise the HRA and use the default 0.0 meter flagpole height or provide a rationale to justify the assumptions used.
9. Emission factors from the year 2020 was used to represent the long-term 30-year evaluation period (Appendix A-3\_HRA Report – Page 10). The project will be operational in 2017, and the year 2020 was selected as a “reasonable balance.” The 2015 revised OEHHA guidelines acknowledge that children are more susceptible to the exposure to air toxics and have revised the way cancer risks are estimated to take this into account. Since the emissions from the project-generated trucks get cleaner with time due to existing regulations, it would not be appropriate to average out the emissions over the 30-year exposure duration since this would underestimate the health risks to children who would be exposed to higher DPM concentrations during the early years of project operation. Therefore, the SCAQMD staff recommends that the DPM emissions for each year of operation be applied to each of the corresponding age bins (i.e. emissions from Year 1 of project operation (2017) should be used to estimate cancer risks to the third trimester to 0 year age bin; Year 1 and 2 of project operation should be used to estimate the cancer risks to the 0 to 2 years age bins; and so on).

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

10. CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. In the event that the Lead Agency, after revising the HRA analysis based on the comments provided above, finds that the HRA would result in significant impacts, the SCAQMD staff recommends incorporating the following on-road mobile-source truck related mitigation measures in the Final MND, in addition to the mitigation measures AQ-1 through AQ-15 in the MND:
  - Require the use of 2010 compliant diesel trucks, or alternatively fueled, delivery trucks (e.g., food, retail and vendor supply delivery trucks) at commercial/retail sites upon project build-out. In the event that that 2010 model year or newer diesel trucks cannot be obtained, provide documentation as information becomes available and use trucks that meet EPA 2007 model year NOx emissions requirements<sup>7</sup>. Additionally, consider other measures such as incentives, phase-in schedules for clean trucks, etc.
  - Have truck routes clearly marked with trailblazer signs, so that trucks will not enter residential areas.
  - Limit activities to the amounts analyzed in the MND.
  - Promote clean truck incentive programs (see the discussion above regarding Cleaner Operating Truck Incentive Programs), and
  - Provide electric vehicle (EV) Charging Stations (see the discussion below regarding EV charging stations).
  - Should the proposed project 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 MND, the Lead Agency should require a phase-in schedule for these cleaner operating trucks to reduce project impacts.

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<sup>6</sup> South Coast Air Quality Management District. <http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/modeling-guidance>.

<sup>7</sup> Based on a review of the California Air Resources Board’s diesel truck regulations, 2010 model year diesel haul trucks should have already been available and can be obtained in a successful manner for the project construction California Air Resources Board. March 2016. Available at: <http://www.truckload.org/tca/files/ccLibraryFiles/Filename/00000003422/California-Clean-Truck-and-Trailer-Update.pdf> (See slide #23).

SCAQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency and project applicant.

- 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 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy<sup>8</sup>. 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 the proposed 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>9</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.

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

11. In addition to the mobile source mitigation measures identified above, the Lead Agency should incorporate the following onsite area source mitigation measures below to further reduce the project's operational air quality impacts.

- 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.
- Maximize the planting of trees in landscaping and parking lots.
- Use light colored paving and roofing materials.
- Utilize only Energy Star heating, cooling, and lighting devices, and appliances.
- Install light colored "cool" roofs and cool pavements.
- Limit the use of outdoor lighting to only that needed for safety and security purposes.
- Require use of electric or alternatively fueled sweepers with HEPA filters.
- Use of water-based or low VOC cleaning products.

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<sup>8</sup> Southern California Association of Governments. Adopted April 7, 2016. Available at: <http://scagtrpocs.net/Pages/default.aspx>.

<sup>9</sup> City of Los Angeles. Accessed on March 30, 2017. Available at: [http://ladbs.org/LADBSWeb/LADBS\\_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf](http://ladbs.org/LADBSWeb/LADBS_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf).