



# South Coast Air Quality Management District

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

SENT VIA USPS AND E-MAIL:

March 10, 2020

[steven.valdez@lus.sbcounty.gov](mailto:steven.valdez@lus.sbcounty.gov)

Steven Valdez, Senior Planner  
County of San Bernardino, Land Use Department  
15900 Smoke Tree Street, Suite 131  
Hesperia, CA 92345

## **Site Plan Consultation for the PROJ-2019-00081<sup>1</sup>**

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned project. South Coast AQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the Proposed Project that should be included in the CEQA document. Note that copies of the CEQA document that are submitted to the State Clearinghouse are not forwarded to South Coast AQMD. Please forward a copy of the CEQA document directly to South Coast AQMD at the address in our letterhead upon its completion and public release. **In addition, please send with the CEQA document all appendices or technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files<sup>2</sup>. These include emission calculation spreadsheets and modeling input and output files (not PDF files). Without all files and supporting documentation, South Coast AQMD staff will be unable to complete a review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.**

### **Air Quality Analysis**

South Coast AQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. South Coast AQMD staff recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analyses. Copies of the Handbook are available from South Coast AQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on South Coast AQMD's website here: [http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)). South Coast AQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: [www.caleemod.com](http://www.caleemod.com).

South Coast AQMD has also developed both regional and localized significance thresholds. South Coast AQMD staff requests that the Lead Agency quantify criteria pollutant emissions and compare the results to

---

<sup>1</sup> The Proposed Project consists of construction of a 54,000-square-foot warehouse on 8.5 acres.

<sup>2</sup> In the event that an environmental impact report (EIR) is prepared for the Proposed Project, pursuant to the CEQA Guidelines Section 15174, the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review.

the recommended regional significance thresholds found here: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>. In addition to analyzing regional air quality impacts, South Coast AQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs 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 analysis by either using the LSTs developed by South Coast AQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) 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, 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, such as sources that generate or attract vehicular trips, should be included in the analysis.

In the event that the Proposed Project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment. 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 at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board’s *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at the following internet address: <http://www.arb.ca.gov/ch/handbook.pdf>. CARB’s Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Guidance<sup>3</sup> on strategies to reduce air pollution exposure near high-volume roadways can be found at: [https://www.arb.ca.gov/ch/rd\\_technical\\_advisory\\_final.PDF](https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF).

South Coast AQMD staff is concerned about potential public health impacts of siting warehouses within close proximity of sensitive land uses, especially in communities that are already heavily affected by the existing warehouse and truck activities. The South Coast AQMD’s Multiple Air Toxics Exposure Study (MATES IV), completed in May 2015, concluded that the largest contributor to cancer risk from air pollution is diesel particulate matter (DPM) emissions, and that the South Coast Air Basin portion of San Bernardino County has an estimated population-weighted average cancer risk at 339 in one million<sup>4</sup>. Operation of warehouses generates and attracts heavy-duty diesel-fueled trucks that emit DPM. When the health impacts

---

<sup>3</sup> In April 2017, CARB published a technical advisory, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*, to supplement CARB’s Air Quality and Land Use Handbook: A Community Health Perspective. This technical advisory is intended to provide information on strategies to reduce exposures to traffic emissions near high-volume roadways to assist land use planning and decision-making in order to protect public health and promote equity and environmental justice. Accessed at: <https://www.arb.ca.gov/ch/landuse.htm>.

<sup>4</sup> South Coast AQMD. May 2015. *Multiple Air Toxics Exposure Study in the South Coast Air Basin*. Accessed at: <http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf>

from the Proposed Project are added to those existing impacts, residents living in the communities surrounding the Proposed Project will possibly face an even greater exposure to air pollution and bear a disproportionate burden of increasing health risks. Thus, cumulative impacts from warehouse projects in communities with existing industrial sources should be evaluated and disclosed.

### **Trip Rates for High Cube Warehouse Projects**

The Proposed Project will include, among others, construction of a 54,000-square-foot warehouse on 8.5 acres. South Coast AQMD staff recommends the use of truck trip rates from the Institute of Transportation Engineers (ITE) for high cube warehouse projects located in South Coast AQMD (i.e. 1.68 average daily vehicle trips per 1,000 square feet and 0.64 average daily truck trips per 1,000 square feet). Consistent with CEQA Guidelines, the CEQA document for the Proposed Project may use a non-default trip rate if there is substantial evidence supporting another rate is more appropriate for the air quality analysis.

### **Mitigation Measures**

In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize these impacts. Pursuant to CEQA Guidelines Section 15126.4(a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the Proposed Project, including:

- Chapter 11 “Mitigating the Impact of a Project” of South Coast AQMD’s *CEQA Air Quality Handbook*.
- South Coast AQMD’s CEQA web pages at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies>.
- South Coast AQMD’s Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions.
- California Air Pollution Control Officers Association (CAPCOA)’s *Quantifying Greenhouse Gas Mitigation Measures* available here: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.
- Other measures to reduce air quality impacts from land use projects can be found in South Coast AQMD’s Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning: <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf>.

Additional mitigation measures for operational air quality impacts from mobile sources that the Lead Agency should consider in the CEQA document may include the following:

- Require zero-emissions or near-zero emission on-road haul trucks such as heavy-duty trucks with natural gas engines that meet the CARB’s adopted optional NOx emissions standard at 0.02 grams per brake horsepower-hour (g/bhp-hr), if and when feasible. At a minimum, require that vendors, contractors, and/or haul truck operators commit to using 2010 model year<sup>5</sup> trucks (e.g., material delivery trucks and soil import/export) that meet CARB’s 2010 engine emissions standards at 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks<sup>6</sup>.

---

<sup>5</sup> The CARB adopted the statewide Truck and Bus Regulation in 2010. The Regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. More information on the CARB’s Truck and Bus Regulation is available at: <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>.

<sup>6</sup> Based on a review of the CARB’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:

Include environmental analyses to evaluate, identify, and provide sufficient power and infrastructure available for zero emission trucks and supportive infrastructures in the Energy and Utilities and Service Systems Sections in the CEQA document, where appropriate. The Lead Agency should include the requirement of zero-emission or near-zero emission on-road haul trucks in applicable bid documents, purchase orders, and contracts. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards, and make the records available for inspection. The Lead Agency should conduct regular inspections to the maximum extent feasible to ensure compliance.

- 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 CEQA document, the Lead Agency should require a phase-in schedule for these cleaner operating trucks to reduce any significant adverse air quality impacts. South Coast AQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency.
- Provide electric vehicle (EV) Charging Stations (see the discussion below regarding EV charging stations).
- 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 (2016-2040 RTP/SCS)<sup>7</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, South Coast AQMD staff recommends the Lead Agency require the Proposed Project 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, South Coast AQMD staff recommends that the Lead Agency require at least five percent of all vehicle parking spaces (including for trucks) include EV charging stations<sup>8</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 be appropriately sized to allow for future expanded use.
- Have truck routes clearly marked with trailblazer signs, so that trucks will not enter residential areas.
- Limit the daily number of trucks allowed at the Proposed Project to levels analyzed in the Final CEQA document. If higher daily truck volumes are anticipated to visit the site, the Lead Agency should commit to re-evaluating the Proposed Project through CEQA prior to allowing this land use or higher activity level.
- Design the Proposed Project such that entrances and exits are such that trucks are not traversing past neighbors or other sensitive receptors.
- Design the Proposed Project such that any check-in point for trucks is well inside the Proposed Project site to ensure that there are no trucks queuing outside of the facility.
- Design the Proposed Project to ensure that truck traffic within the Proposed Project site is located away from the property line(s) closest to sensitive receptors.
- Restrict overnight parking in residential areas.
- Establish overnight parking within the Proposed Project where trucks can rest overnight.

---

<http://www.truckload.org/tca/files/ccLibraryFiles/Filename/000000003422/California-Clean-Truck-and-Trailer-Update.pdf> (See slide #23).

<sup>7</sup> Southern California Association of Governments. Accessed at: <http://scagrtpsc.net/Pages/FINAL2016RTPSCS.aspx>.

<sup>8</sup> City of Los Angeles. Accessed at: [http://ladbs.org/LADBSWeb/LADBS\\_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf](http://ladbs.org/LADBSWeb/LADBS_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf).

- Establish area(s) within the Proposed Project site for repair needs.
- Develop, adopt and enforce truck routes both in and out of city, and in and out of facilities.
- Create a buffer zone of at least 300 meters (roughly 1,000 feet), which can be office space, employee parking, greenbelt, etc. between the Proposed Project and sensitive receptors.

Additional mitigation measures for operational air quality impacts from area sources that the Lead Agency should consider in the CEQA document may include the following:

- Maximize use of solar energy including solar panels.
- Install 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 and/or to power EV charging stations.
- 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.
- Require use of electric or alternatively fueled sweepers with HEPA filters.
- Use of water-based or low VOC cleaning products that go beyond the requirements of South Coast AQMD Rule 1113.

### Alternatives

If the Proposed Project generates significant adverse air quality impacts, CEQA requires the consideration and discussion of alternatives to the project or its location which are capable of avoiding or substantially lessening any of the significant effects of the project. The discussion of a reasonable range of potentially feasible alternatives, including a “no project” alternative, is intended to foster informed decision-making and public participation. Pursuant to CEQA Guidelines Section 15126.6(d), the CEQA document shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project.

### Permits

If implementation of the Proposed Project requires a permit from South Coast AQMD, South Coast AQMD should be identified as a Responsible Agency for the Proposed Project in the CEQA document. For more information on permits, please visit South Coast AQMD’s webpage at: <http://www.aqmd.gov/home/permits>. If there are permitting questions, they can be directed to Engineering and Permitting Staff at (909) 396-3385.

### Data Sources

South Coast AQMD rules and relevant air quality reports and data are available by calling South Coast AQMD’s Public Information Center at (909) 396-2001. Much of the information available through the Public Information Center is also available via South Coast AQMD’s webpage (<http://www.aqmd.gov>).

South Coast AQMD staff is available to work with the Lead Agency to ensure that project’s air quality and health risk impacts are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at [lsun@aqmd.gov](mailto:lsun@aqmd.gov).

Sincerely,

*Lijin Sun*

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources