South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

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Ms. Kim Clinton, Senior Planner
City of Banning Planning Department
99 East Ramsey
Banning, CA 92220

**Draft Mitigated Negative Declaration (Draft MND) for the Proposed Banning Gateway Project**

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff would also like to thank the lead agency for the additional time to submit comments.

The SCAQMD staff is concerned that the Draft Mitigated Negative Declaration did not adequately analyze air quality impacts and therefore has understated these potential impacts. The air quality analysis relied on a trip rate that is substantially lower than the model's default rate and the analysis lacked a Health Risk Assessment. The air quality analysis should include a Health Risk Assessment to quantify the health risk to the surrounding community from diesel trucks associated with the proposed project. In addition, the SCAQMD staff is concerned that the Localized Significance Threshold analysis was not performed correctly and underestimated potential adverse impacts. The SCAQMD staff strongly recommends that the lead agency corrects these deficiencies in the air quality analysis to appropriately communicate to the public the potential adverse environmental impacts and to include mitigation measures if impacts are found to be significant. In addition, revisions to the air quality analysis may indicate that an Environmental Impact Report is the more appropriate CEQA document to adequately disclose potential adverse air quality impacts (CEQA Guidelines §15064, §15074). More detailed comments are provided in the attached.

Please provide the SCAQMD staff with written responses to all comments contained herein prior to the adoption of the Final Mitigated Negative Declaration. The SCAQMD staff would be happy to work with the Lead Agency to address these issues and any other 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,

Susan Nakamura
Planning Manager

Attachment

SN:GM

RVC090324-04
Control Number

**Localized Significance Thresholds**

1. The air dispersion modeling was prepared using the EPA's regulatory default dispersion options and SCAQMD meteorological data. When using SCAQMD meteorological data, the calms routine must be bypassed. The final CEQA document should include air dispersion modeling with the calms routine bypassed.

2. The air dispersion modeling was prepared using the PM10-Pos 97 NAAQS pollutant option. The PM10-Pos97 NAAQS generates only the fourth highest PM10 concentration, which is not consistent with SCAQMD modeling protocol. This option should not be used since EPA vacated the 1997 PM10 standard (see http://www.epa.gov/EPA-AIR/2005/November/Day-09/a21627.htm). SCAQMD staff requires that the first highest PM10 concentration at a receptor must be used. Therefore, the "other" pollutant option should be used to model PM10.

3. The PM10 air dispersion modeling was prepared using variable emission factors. A unit of one was placed into eight hours from 8:00 am to 3:00 pm. However, the PM10 emission rate used to estimate the concentration was estimated over 24 hours instead of eight hours. By dividing by 24 hours instead of eight, concentrations were estimated based on four pounds of PM10 per day instead of 12 pounds of PM10 per day. The same was done for PM2.5 emissions. The concentrations reported in the final CEQA document should be estimated from emission rates that are constant with the daily PM10 or PM2.5 emissions.

   The correction of the pollutant option (comment #2) and emission rate would result in a 24-hour PM10 concentration of 11.9 micrograms per cubic meter instead of the reported 3.29 micrograms per cubic meter. A localized significant concentration of 11.9 micrograms per cubic meter is greater than the localized significant threshold of 10.4 micrograms per cubic meter.

4. The PM2.5 concentrations were developed using the Desert Research Institute (DRI) PM10 equation presented in the SCAQMD Localized Significance Threshold Methodology. The DRI equation was developed for fugitive dust from roadways, which would be similar to fugitive dust from construction activities. Since PM2.5 is generated from both fugitive dust and equipment exhaust, SCAQMD staff does not believe that the DRI equation is applicable to PM2.5. Therefore, ISCST3 directly generated PM2.5 concentrations should be presented in the final CEQA document.

5. The NOx concentration was estimated by multiplying the concentrations modeled using a unitized emission rates by an emission rate calculated from daily NOx emissions. The following equation was used:

   NOx concentration, ug/m3 = ISCST3 modeled NO2 concentration from unitized emission rate, ug/m3 x (Daily NO2 emissions x 453.59 g/lb)/(8 hr/day/3600 sec/hr)/number of sources x (distance to receptor/1000 x 0.467), where 0.467 is the NO to NO2 conversion at 1,000 meters.

This equation is not correct. The correct equation would be:

NOx concentration, ug/m3 = ISCST3 modeled NO2 concentration from unitized emission rate, ug/m3 x (Daily NO2 emissions x 453.59 g/lb)/(8 hr/day/3600 sec/hr) x 0.053), where 0.053 is the NO to NO2 conversion at 20 meters.

When the correct equation is used, the one hour NOx concentration is 666.5 micrograms per cubic meter (0.35 ppm) instead of seven micrograms per cubic meter. When the background concentration of 0.10 ppm is added to the 0.35 ppm, the total 1-hour NOx concentration at the receptor becomes 0.45 ppm. The one hour NOx concentration of 0.45 ppm exceeds the one hour NOx significance threshold of 0.18 ppm. The NOx concentration should be corrected in the final CEQA document.

6. CO concentration was estimated by multiplying the concentrations modeled using a unitized emission rates by an emission rate calculated from daily CO emissions. The following equation was used:

   CO concentration, ug/m3 = ISCST3 modeled CO concentration from unitized emission rate, ug/m3 x (Daily CO emissions x 453.59 g/lb)/(8 hr/day/3600 sec/hr)/number of sources.

   This equation is not correct. The correct equation would be:

   CO concentration, ug/m3 = ISCST3 modeled CO concentration from unitized emission rate, ug/m3 x (Daily CO emissions x 453.59 g/lb)/(8 hr/day/3600 sec/hr).

   When the correct equation is used the one hour CO concentration from the project is 27,667 micrograms per cubic meter (24.2 ppm) instead of 1,726 micrograms per cubic meter, and the eight hour CO concentration from the project is 8,059 micrograms per cubic meter (7.1 ppm) instead of 501 micrograms per cubic meter. When the proposed project one hour CO concentration of 24.2 ppm is added to the one hour background CO concentration of 3.8 ppm a total one hour CO concentration of 28 ppm would occur at the receptor, which exceeds the one hour CO significance threshold of 20. When the proposed project one hour CO concentration of 7.1 ppm is added to the one hour background CO concentration of 2.9 ppm a total one hour CO concentration of 10 ppm would occur at the receptor, which exceeds the eight hour CO significance threshold of 9.0 ppm. The CO concentration should be corrected in the final CEQA document.

7. The corrections to the LST analysis appear to generate PM10, NOx and CO concentrations that exceed the associated LSTs. If after correcting and refining the LST analysis construction criteria concentrations at sensitive/residential receptors are still above significance thresholds, then an EIR should be prepared and appropriate mitigations should be proposed.

**Operational Emissions**

8. In the analysis of operational air quality impacts on pages 26-27 of the Draft MND Air Quality Analysis, the lead agency calculates on-road mobile source emissions by using the trip rate calculated in the Traffic Impact Study (KOA Corporation, March 2009) in the "Transportation and Traffic" section of the Draft MND, converting truck trips into passenger car equivalents (PCEs) (one truck trip equals 1.5-3.0 PCEs), using an average one-way trip length of 8.3 miles one-way (URBEMIS2007 output sheets Operational Settings under Summary of Land Uses, High Cube Warehouse), and using passenger car emission factors. Since the warehouse is located inland, the lead agency should demonstrate that the origin and destination sites for supplies and deliveries are local, i.e., within 8 miles of the proposed project. SCAQMD staff believes that the on-road mobile source emissions may be underestimated, at least for some pollutants (see also comment #9). The SCAQMD staff recommends that average haul truck trip lengths are 40 miles one-way. In addition, even multiplying the passenger car emission factor by the PCE ratio of 3.0 results in a lower emission factor for some pollutants than using the heavy-duty truck emission factor. Therefore, the SCAQMD staff recommends that the lead agency recalculate mobile source emissions in the Final MND by using the actual fleet characteristics (i.e., total number of daily trips by passenger cars, medium-duty trucks, and heavy-duty trucks, use the applicable trip length for each vehicle category (using 40 miles per one-way trip for haul trucks), and use the appropriate emission factors for each vehicle category. As an alternative, if the lead agency wishes to use the 8.3 miles one-way figure for haul trucks, the lead agency should document the source of the trip length and demonstrate that it is appropriate for this proposed project. The lead agency should then include this 8.3 one-way mileage limit as a mitigation measure to reduce regional air quality impacts from the trucking operations.

**9.** In Table 13 – Warehouse to High Cube Comparison on page 64 of the Traffic Study (KOA Corp., March 2009) and in the URBEMIS2007 computer model output sheets for operational emissions, the lead agency has changed the URBEMIS2007 default trip rate from 4.96 to 1.14 trips per 1,000 square foot unit under the High Cube Warehouse land use type resulting in substantially fewer operational trips and vehicle miles traveled, therefore potentially underestimating project operational air quality impacts. Based on the lead agency's square footage inputs for operations in the URBEMIS model, 939,360 square feet or 78 percent of the total land use at the proposed site is for warehouse use. In addition, the project description includes at least 143 loading docks at the proposed site. Because such a great percentage of the site is planned warehouse use, using higher default trip rate for modeling operational emissions seems more appropriate. If the lead agency believes that the 1.14 per 1,000 square foot unit trip rate is more appropriate, detailed documentation should be provided in the Final MND that demonstrates that the trip rate is appropriate for the land use and its inland location. Otherwise, the SCAQMD recommends that operational impacts should be revised accordingly in the URBEMIS model using the more conservative 4.96 trip rate in the Final MND. Based on modeling done by SCAQMD staff using the trip rate of 4.96 per 1,000 square feet, the proposed project would exceed the SCAQMD recommended daily operational regional significance

thresholds for CO (550 pounds per day), NOx (55 pounds per day), and VOC (55 pounds per day), and would therefore be significant.

**Traffic Report Dates and Daily Vehicle Trip Figures**

10. On page 26 of the Air Quality Analysis, the lead agency cites a Traffic Study dated December 2008 and in the Appendix H – Traffic (on a diskette included with the Draft MND), a Traffic Study dated March 2, 2009 is cited on page 66. This apparent discrepancy with the two traffic study dates should be clarified. In the Draft MND, only the KOA Corporation Traffic Study dated March 2, 2009 was included for public review.

    In addition, the lead agency cites a total of 3,234 daily project trips based on PCEs on page 26 of the Air Quality Analysis (KOA Corporation, December 2008). The lead agency also used the 3,234 daily project trips amount in its URBEMIS2007 modeling but 3,565 daily trips were used in the traffic study (KOA Corporation, March 2, 2009) on page 66. In the Final MND, the number of total daily trips used should be consistent throughout the document's air quality analysis, traffic study and/or any health effects study performed by the lead agency.

**Health Risk Assessment**

11. In the Draft MND, the lead agency estimates that the proposed project will increase vehicle trips on adjacent streets by approximately 3,233 total vehicle trips and the majority of the proposed project building area is for warehouse use. In addition, on page 63 of the Traffic Impact Analysis (KOA Corporation, March 2009), the lead agency estimates that ten percent of the vehicle trips (between 323-357 trucks per day) (see also comments #8, #9, and #10), to be from diesel trucks. From the Proposed General Plan Truck Routes (Appendix A, Traffic Count Data, Figure 15), these trucks will pass residences along the west side of Hathaway Street before heading to the Interstate 10 freeway via Ramsey Street. Because these daily diesel trucks will pass sensitive receptors along Hathaway Street, the SCAQMD recommends that the lead agency perform a health risk assessment of the potential risk to the residences along nearby streets from potential diesel exhaust emissions and include this assessment in the Final MND. In 1998, the California Air Resources Board identified diesel exhaust as a carcinogen. If there is a substantial increase in the number of heavy-duty diesel truck trips, an air toxics health risk analysis may be warranted.

    The SCAQMD has developed a methodology for estimating cancer risks from mobile sources in a document entitled Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions. This document can be downloaded from the AQMD's CEQA web pages at the following URL: http://www.aqmd.gov/ceqa/handbook/mobile_toxic/diesel_analysis.doc . The HRA Guidance document also contains a list of mitigation measures that can be used to

mitigate diesel exhaust emissions, if the health risk is significant (ten in one million [1.0 x $10^{-5}$]).

The SCAQMD recommends that the lead agency consider the following mitigation measures from the HRA Guidance document for incorporation into the proposed project and the Final MND, if applicable and feasible:

Potential Mitigation Measures for Long Term Operations

- Provide a minimum buffer zone of 300 meters between truck traffic and sensitive receptors;
- Re-route truck traffic by restricting truck traffic on certain sensitive routes;
- Improve traffic flow by signal synchronization;
- Enforce any local truck parking restrictions;
- Develop park and ride programs;
- Restrict truck idling to five minutes or less;
- Restrict operation to "clean" trucks;
- Electrify service equipment at facility;
- Provide electrical hook-ups for trucks that need to cool their load;
- Electrify auxiliary power units;
- Pave roads and road shoulders;
- Provide onsite services to minimize truck traffic in or near residential areas, including, but not limited to, services such as automated teller machines; etc.;
- Require or provide incentives for haul/delivery trucks to use low-sulfur diesel fuel with particulate traps; and
- Conduct air quality monitoring at sensitive receptors, if impacts are found to be significant.

**Siting of Sensitive Land Uses Near Industrial Uses or High Traffic Roadways**

12. In the project description on page 2 and in figures 15 in Appendix A (Traffic Count Data) of the Draft MND, the proposed project includes a 12-building, 1,200,000 square foot business park with at least 143 loading docks: buildings one through ten having "one or more" loading docks; building 11 has 112 loading docks; and building 12 has 21 loading docks on the total 64 –acre site. The proposed project is estimated to generate 357 daily diesel truck trips (see also comment #10). Although the lead agency is placing buildings 11 and 12, which have the most loading docks, on the northeastern and southeastern portions of the property (1,100 feet away from the residences on Hathaway Street), the other buildings will still have an undetermined number, i.e., "at least one or more" loading docks nearer to the sensitive receptors located 65-feet west of the project site along Hathaway Street. Therefore, the truck

activities at buildings one through ten will still potentially expose the residences to the truck diesel particulate emissions adding to the diesel particulate emissions from trucks operating from buildings 11 and 12. Finally, the lead agency proposes truck routes that will pass existing residences located west of the proposed project site along Hathaway Street potentially exposing the people living in the residences to potential diesel particulate emissions.

The SCAQMD recommends that the lead agency consult the California Environmental Protection Agency (CAL/EPA) and the California Air Resources Board (CARB) document: "Air Quality and Land Use Handbook: A Community Health Perspective (April 2005) "(Handbook), which cautions against siting projects that include industrial, commercial, warehousing facilities, etc., next to sensitive land uses (schools, residences, playgrounds, convalescent centers, nursing homes, long-term health care facilities, etc.) where the sensitive land uses would be exposed to the associated emissions that may lead to adverse health effects beyond those associated with regional air pollution in urban areas. The SCAQMD recommends that sensitive receptors be properly distanced from incompatible land uses as defined in the CARB Handbook (see also comment #11 under mitigation measures). The Handbook is available at the following website: http://www.arb.ca.gov/ch/landuse.htm .

A suggested alternative would be to reroute truck traffic onto a new road south of the proposed site that would connect truck traffic from the business park to Ramsey Street, therefore, bypassing Hathaway Street and eliminating potential toxic exposure to affected residences.