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Draft Environmental Impact Report (Draft EIR) for the Proposed VIP Moreno Valley Project (PA09-0004 and PA09-0012, Tentative Parcel Map No. 36162)

The South Coast Air Quality Management District (AQMD) 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 CEQA document.

In the project description, the lead agency proposes the construction of a 1,616,133 square foot warehouse distribution center building including 44,000 square feet of business office space located on a 71.13 acre site. The single building would be constructed with 264 loading docks, and during site preparation, approximately 220,000 cubic yards of fill would be required. Construction is estimated to begin in January of 2013 and be completed at the end of the year.

The AQMD staff is concerned that although potential health impacts were estimated using a screening level health risk assessment for sensitive receptors and workers close to the proposed project site, potential health risks from project truck traffic passing by sensitive receptors along various truck routes were not fully quantified. In addition, since the lead agency has determined that the proposed project's air quality impacts will substantially exceed the AQMD recommended significance thresholds, additional feasible mitigation measures should be considered in the Final EIR. Further, the severity of these exceedances, while already high, may be underestimated due to some calculation errors. Details regarding these comments follow in the attachment.

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,

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

IM:GM

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Control Number

Operational Mitigation Measures

1. Because the lead agency has determined that air quality impacts from project operations will substantially exceed recommended regional thresholds for ROG, NOx, CO and PM10, the AQMD staff recommends that the lead agency consider the following changes and additional mitigation measures along with the measures proposed by the lead agency starting on page 4.2-26 of the Draft EIR. Other lead agencies that have used measures similar to these include the City of Banning[1], Riverside County[2], City of San Bernardino[3], and the San Pedro Bay Ports[4], among others.

   Recommended change:

   - Lease/purchase documents shall identify that tenants are ~~encouraged~~required to ~~promote~~implement the following:

     - ~~Use of fleet vehicles~~At project start, all heavy duty trucks entering the facility must conform~~ing~~ to 2010 EPA air quality emissions standards or better.

   Recommended additions:

   - If the above clean truck requirements are infeasible, a phase-in schedule should be put forth that will feasibly achieve emission reductions as soon as possible, and faster than existing regulations. Should an alternative schedule be found necessary, the AQMD staff should be consulted prior to approving the schedule.
   - The facility operator will maintain a log of all trucks entering the facility to ensure that on average, the daily truck fleet meets the quantities and emission standards listed in the Draft EIR. This log should be available for inspection by city staff at any time.
   - The facility operator will ensure that onsite staff in charge of keeping the daily log and monitoring for excess idling will be trained/certified in diesel health effects and technologies [for example, by requiring attendance at CARB approved courses (such as the free, one-day Course #512)].
   - Limit the daily number of trucks allowed at each facility to levels analyzed in the Final EIR. If higher daily truck volumes are anticipated to visit the site, the lead agency should commit to re-evaluating the project through CEQA prior to allowing this higher activity level.
   - Require at least a portion of the fleet to utilize alternative fueled technologies.

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[1] Banning Business Park
http://banning.ca.us/archives/30/July%2013,%202010%20City%20Council%20Agenda.pdf
[2] Mira Loma Commerce Center
http://www.rctlma.org/online/content/conditions_of_approval.aspx?PERMITNO=pp17788
[3] Palm/Industrial Distribution Center http://www.ci.san-bernardino.ca.us/civica/filebank/blobdload.asp?BlobID=11793
[4] Clean Trucks Program http://www.cleanairactionplan.org/cleantrucks/

- The 2012 Regional Transportation Plan includes a zero-near-zero emissions truck corridor along the SR-60 freeway. Because at least a portion of the trucks serving this project may be expected to travel along this route, the project should provide onsite alternative fueling infrastructure, such as electric charging stations or natural gas fueling that will help facilitate these low-emitting trucks.
- Prohibit all vehicles from idling in excess of five minutes, both on- and off-site.
- At a minimum, require tenants upon occupancy 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.
- 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.
- 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.
- Improve traffic flow by signal synchronization.
- Use street sweepers that comply with SCAQMD Rules 1186 and 1186.1.

Project Impacts from Diesel Trucks Operating Past Sensitive Receptors

2. In the air quality analysis, the lead agency performed a screening level health risk assessment to estimate potential health effects for operational emissions from Diesel Particulate Matter (DPM) emitted from the estimated 1,475 diesel trucks operating at the proposed site each day. This screening determined that existing sensitive receptors and workers located near the proposed site would be exposed to less than significant concentrations for operational related health risks. Since project trucks will likely use existing truck routes that will pass by sensitive receptors (residences, a child care center, and a day school along Perris Boulevard, and residences along Ramona Expressway), the AQMD staff is concerned that the exposure from the truck

diesel particulate emissions to sensitive receptors along the truck routes has not been quantified. The Health Risk Assessment (HRA) modeling did not include emissions from the entire length of these roadways. Because of the substantial number of diesel trucks passing these sensitive receptors each day, the AQMD staff believes that the air toxics health risk analysis should include all truck routes for their entire length from the facility to the freeway. AQMD staff recommends that the HRA include emissions along the entire roadway length up to the nearest freeway in order to estimate potential impacts to sensitive receptors. Methodologies for estimating cancer risks from mobile sources are available from the AQMD website[5].

Health Risk Assessment Emission Calculations

3. The emission rates used in the Health Risk Assessment (HRA) do not account for the full distance of truck travel within the modeling domain. For example, in Appendix B of the HRA, the Diesel Particulate Matter (DPM) emission rate across the entire modeled domain is listed as 6.01E-5 grams/second. This emission rate is then split evenly amongst the 34 volume sources in the model that represent the paths that trucks will travel within approximately 500 meters of the proposed warehouse. Each volume source is then assumed to emit 0.13 lbs/year. However, based on a review of the emission calculation spreadsheet provided to AQMD staff, the overall 6.01E-5 emission rate assumes only 60 meters of travel per truck. If every volume source in the model is assumed to have the same source strength (see comment below), then the total truck travel within the modeling domain should be used to derive the overall emission rate before dividing by the total number of volume sources. This error appears to produce a significant underestimation of facility emissions.

Health Risk Assessment Modeling Parameters

4. There are a variety of modeling parameters that appear to use a non-standard methodology. AQMD staff recommends that the analysis consider the points below and revise the analysis as necessary. AQMD staff is available to discuss any of these technical details with either the lead agency or its consultants.
    a. The distance between volume sources is substantially wider than recommended by EPA guidance[6]. AQMD staff recommends that the model be re-run with traditional source parameters for roadways, and that all roadways with project-related truck travel be modeled between the facility and the nearest freeway.
    b. The source strength is assumed to be equal for each volume source. However, because some roadway links may have greater volumes of truck traffic, the source strength would be expected to vary for different sources. The source strength of each volume source should be re-examined and adjusted as necessary.

[5] Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions http://www.aqmd.gov/ceqa/handbook/mobile_toxic/diesel_analysis.doc
[6] ISC User's Guide Volume II available here: http://www.epa.gov/scram001/userg/regmod/isc3v2.pdf

c. Idling is assumed to only occur for 10 minutes per truck for each site visit. The project is anticipated to bring in approximately 1,475 trucks per day, or about one truck per minute on average over a 24-hour day. Given this high traffic volume, the idling time should be adjusted to account for 5 minutes of idling at entry, exit, and while at dock or parked onsite for a total of 15 minutes per truck.

d. The DPM emission rates in the HRA are derived from the EMFAC2007 model for calendar year 2020. This single year rate is assumed to approximate the average emissions across a 70 year life of the project. The state Air Resources Board (ARB) has recently released the EMFAC2011 model that includes updated emission factors based on recent diesel rulemaking activity. These emission rates are therefore generally lower than those found in EMFAC2007. The lead agency might consider determining a true 70 year average taking emission rates from each year from the EMFAC2011 model instead of using just one year from EMFAC2007.

Vehicle Fleet Mix

5. As specified in the Transportation chapter of the Draft EIR, the vehicle fleet mix used to estimate truck emissions is based on values recommended in the Fontana Truck Study. This study includes data for 2-axle, 3-axle, and 4+ axle trucks. EMFAC2007 also includes emission factors based on truck size, however the splits are based on vehicle weight, not axle. For the regional criteria pollutant calculations, the Draft EIR assumes that 2-axle and 3-axle trucks correspond to EMFAC2007 LDT1 and LDT2 vehicle classifications. LDT1 and LDT2 are for pickup trucks, and are not typical of the higher emitting 2-axle and 3-axle trucks that would make deliveries at a warehouse. Based on guidance in the CalEEMod User Guide, 2-axle trucks should use the LHD1 classification, and 3-axle trucks should use MHD. These same classifications should be used for the HRA.

Off-Road Construction Equipment Emissions Analysis

6. In the air quality analysis, the lead agency estimated project short- and long-term air quality impacts using CalEEMod, a statewide land use emissions computer model. This model uses default and user-defined settings to estimate emissions based on the land use settings. The lead agency has estimated on-site, off-road equipment emissions calculated by the CalEEMod model. After these estimates using the CalEEMod model, the lead agency then reduced the modeling off-road equipment emissions by 33 percent as cited Under User Comments during the Construction Phase for Off-Road Equipment. The lead agency states in footnotes to Table F on page 23 of Appendix D (Air Quality Studies) that the "Load factors were reduced by 33 percent as directed by ARB to account for OFFROAD emissions overestimation." On February 3, 2012, the AQMD staff commented on a previous CEQA document (National Orange Show Industrial Project, Draft EIR December 2011). In that document, the lead agency had cited as its reasoning for this same reduction documentation of e-mail exchanges in 2010 between the lead agency's consultant and

ARB staff concluding that a 33 percent reduction for load factors would apply to off-road equipment emissions estimated using CalEEMod. To assist in the preparation of the proposed VIP Moreno Valley Project Draft EIR, the lead agency has used the same consultant that was used to perform the air quality analysis for the National Orange Show Industrial Project Draft EIR.

As AQMD staff had responded in its previous letter regarding this issue, the AQMD staff has confirmed that CARB staff[7] does not recommend reducing the default settings in the current OFFROAD2007 without considering all parameters besides the load factor. Other parameters such as activity level, horsepower, and population all contribute to the emission factor estimate, and selectively changing only one parameter will lead to inaccurate estimates. In fact, for some equipment types, OFFROAD2007 may underestimate emissions while others may be overestimated. Because of these revisions (and others), CARB developed the new OFFROAD2011. The AQMD staff therefore recommends that the lead agency either use existing OFFROAD2007 defaults until OFFROAD2011 is incorporated into CalEEMod later this year or run OFFROAD2011 outside CalEEMod and use those results to modify the CalEEMod construction calculations. Therefore, even though the reductions might not change the lead agency's determination of significance for construction air quality impacts, these reductions related to reduced off-road equipment load factors are not recommended by the AQMD staff without further substantial evidence to support those emission reductions resulting from their use. Otherwise, the lead agency should commit to enforcing the assumed lower non-substantiated emission factors.

Construction Mitigation Measures

7. In the Draft EIR, the lead agency has determined that project regional and localized construction impacts exceed the SCAQMD recommended significance thresholds. The AQMD staff therefore recommends the following changes and additional mitigation measures during the projected 12 month construction period in addition to the measures proposed starting on page 4.2-21 to further reduce NOx, PM10 and PM2.5 impacts, if applicable and feasible.

   Recommended change:

   4.2.6.1D All clearing, grading, earth-moving, or excavation activities shall cease when winds (as instantaneous gusts) exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions.

   Recommended additions:

   - Limit the amounts of daily soil disturbance to the amounts analyzed in the Draft EIR.

[7] Personal communication with Nicole Dolney, June 1, 2012.

- Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more).
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered.
- Sweep streets at the end of the day if visible soil is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water).

Further, other lead agencies in the region including LA County Metro, the Port of Los Angeles, and the Port of Long Beach have also enacted the following mitigation measures. AQMD staff recommends the following measures to further reduce air quality impacts from construction equipment exhaust:

- Project start 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, refer to the mitigation measure tables located at the following website: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html .