



South Coast Air Quality Management District

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March 5, 2015

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Draft Environmental Impact Report (DEIR) **for the Proposed Westgate Specific Plan (SCH No. 1995052002)**

The South Coast Air Quality Management District (SCAQMD) 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.

The Lead Agency proposes construction within four village areas that will be divided into 68 total planning development areas on an approximately 964-acre site. Included are up to 6,410 residential units, 50.9 acres of commercial/retail uses, 179.9 acres of business park and professional office uses, 71.6 acres and up to 1.2 million square feet of warehouse/distribution uses, open space/public and private parks, two elementary schools, a high school, landscaping and infrastructure. The four project areas are located by the Interstate 15 (I-15) and State Route 210 (SR-15) Freeways. The air quality analysis assumes a construction period starting in July 2015 showing Phase 1 construction completed as early as 2016, but based on market conditions, overall construction will continue over an approximately 20-year period until project buildout planned for year 2035.

The Lead Agency has determined that estimated construction, operation emissions and cancer risks substantially exceed the SCAQMD recommended thresholds of significance during construction (NO_x), operations (VOC, NO_x, CO, PM₁₀ and PM_{2.5}, mostly from vehicle operations) and for Toxic Air Contaminants (potential cancer risk from sensitive receptors being sited near diesel particulate emissions (DPM) from vehicles operating on the two freeways). The unmitigated cancer risk of up to 47 in one million from the DPM freeway vehicle would remain 33 in one million with mitigation, which is still substantially above the SCAQMD's recommended CEQA significance threshold for Maximum Incremental Cancer Risk (MICR): 10 in one million or greater lifetime probability of contracting cancer.

Based on its review, the SCAQMD staff has concerns about the assumptions made in the health risk assessment and air quality analyses. The SCAQMD also notes that localized significant emission impacts from on-site project uses were not estimated in the DEIR although emissions from on-site mobile sources at proposed the warehouse/distribution, light industry, commercial/retail and other land uses potentially impact nearby sensitive receptors (i.e., residents, students, school staff, etc.). Therefore, these impacts should be analyzed, compared with appropriate significance thresholds and incorporated into the Project and applicable analyses in the Final EIR to demonstrate the Lead Agency's findings. Finally, since the Lead Agency has determined that project air quality impacts from construction, operations and cancer risk are significant and unavoidable, the SCAQMD staff is concerned that all feasible mitigation pursuant to Section 15126.4 of the CEQA Guidelines has not been incorporated into the project and should be included in the Final CEQA document. Further details are included in the attached pages.

Pursuant to Public Resources Code Section 21092.5, SCAQMD staff requests that the Lead Agency provide the SCAQMD with written responses to all comments contained herein prior to the adoption of the Final EIR. The SCAQMD 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 the enclosed comments.

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
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Planning, Rule Development & Area Sources

Attachment

JW:GM

SBC150121-02
Control Number

Health Risk Assessment

1. As of December 9, 2006, AERMOD is fully promulgated as a replacement to ISC3, in accordance with [Appendix W](#) (http://www.epa.gov/ttn/scram/dispersion_prefrec.htm). AERMOD is a steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. AERMOD-ready meteorological data for various meteorological stations within the South Coast Air Basin (SCAB) are available for download free of charge at <http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/data-for-aermod>. The Lead Agency used AERMOD (version 13350) to prepare the dispersion modeling for the Warehouse Health Risk Assessment (HRA) but used AERMOD (version 12060) for the Freeway HRA analysis. Furthermore, while the meteorological data from the SCAQMD Fontana meteorological station was used for both HRA analyses, two different versions of the meteorological data were used. Font2.pfl and Font2.sfc (meteorological data for 2005-2007) and Font7.sfc and Font7.pfl (meteorological data for 2008-2012) are for different years. Given the advancements and bug fixes that occurred in AERMOD between version 12060 and 13350 and 14134 (today's current version), SCAQMD staff recommends that the Lead Agency revise the HRA analyses for both warehouse and freeway using the latest version of AERMOD (version 14134) without the use of Lakes AERMOD-MPI. SCAQMD's modeling guidance for AERMOD can be found at <http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/modeling-guidance>. Please note that when using AERMOD, the regulatory default option should be used (i.e. without the use of the "FASTALL" or "FLAT" options) and the Lakes MPI should not be used without prior SCAQMD or EPA Region 9 approval.
2. The electronic files for the HRA analyses provided by the Lead Agency to SCAQMD staff were incomplete and did not include the receptor file. Therefore, SCAQMD staff was unable to verify the placement of receptors in the HRA analyses. In the event that receptors were not placed in the correct location using a receptor grid of no more than 100-meter spacing over the existing residences and areas zoned or planned for residential development, the health risks reported in the HRA analyses and DEIR could be underestimated. Therefore, SCAQMD staff recommends that the Lead Agency provide a graphic showing the receptor grid placement in the Final EIR.
3. The proposed project includes both two elementary schools and one high school. However, in the analysis, no receptors were placed in those locations to estimate the health risks to the students, teachers and administrative staff at those locations. SCAQMD staff recommends the Lead Agency update the HRA analyses to include the schools as receptors and estimate the health risks at those locations.
4. In the Warehouse HRA analysis, the Lead Agency assumed only 10 minutes of idling for each truck. Since trucks may idle several times on-site, the SCAQMD staff

recommends assuming 15-minutes idling per truck in the HRA analysis, e.g., five minutes entering, five minutes on-site and five minutes exiting, etc.

5. In the DEIR, the Lead Agency analyzed health risk impacts for residential exposure separately from TAC emissions coming from vehicles operating on the I-15 and State SR-15 Freeways. Since residents will be exposed to adverse health impacts from both the freeways (diesel-fueled vehicles operating on the freeways) and project warehouse distribution uses (diesel-fueled trucks operating at the sites), the combined risk from both sources should be totaled and disclosed in the Final EIR, in addition to the separate Maximum Incremental Cancer Risk (MICR) estimates for both sources already included in the DEIR. Otherwise, the potential combined risk is underestimated.

Air Quality Analysis - Operations

Daily Truck Trip Rate

6. In the Air Quality Impact Analysis, the Lead Agency uses the Institute of Transportation Engineers Trip Generation Manual, 9th Edition, 2012 (ITE Manual) 1.68 overall trip generation rate (for cars + trucks totally approximately 2,046 daily vehicles) for the proposed Project, but does not use the 0.64 daily truck trip rate from this same reference.¹ Rather, the Trip Generation Rates use a passenger car daily trip rate of 1.337 vehicles per day and a daily truck trip rate of 0.343 truck trips per day.² By using the 0.343 daily truck trip rate, trucks are estimated at 418 daily truck trips in the DEIR instead of approximately 780 daily truck trips using the ITE 0.64 daily truck trip rate. Therefore, absent from a specific traffic study of known tenants, the Final EIR should be consistent using the associated ITE truck trip rate to estimate project daily truck trips so that project trips and associated emission and health effect impacts are not underestimated.

Vehicle Fleet Mixture Percentages

7. In the DEIR, the air quality analysis used a 0.343 daily truck trip rate (ITE 1.68 total daily trip rate minus 1.337 passenger vehicle trip rate = 0.343 daily truck trip rate) and truck vehicle fleet mixture percentages from the City of Fontana Truck Trip Generation Study (Fontana Study)³ to estimate project air quality operational impacts in the CalEEMod modeling. Specifically, the Fontana Study fleet mixture percentages include: 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. However, the 0.343 daily

¹ ITE Manual, High Cube Warehouse Distribution Center (ITE Land Use – 152), 0.64 weighted average Truck Trip Generation Rate (trip ends per 1,000 square feet of gross floor area), Page 267.

² $1.337 + 0.343 = 1.68$.

³ DEIR, Traffic Impact Analysis, Project Trip Generation, Pages 31 and 37 Project (High Cube Warehouse Distribution Center) Trip Generation (Table 5, (3 of 3)).

truck trip rate resulted in fleet percentages for the CalEEMod truck subcategories that were not proportionally adjusted consistent with the percentage of trucks estimated using the ITE 0.64 daily truck trip rate. Specifically, the number of daily trucks using the ITE 0.64 trip rate results in a greater number of daily truck trips: approximately 780 with the ITE 0.64 rate compared with approximately 418 daily trucks using the 0.343 daily truck trip rate based on the trip generation rates used in the Traffic and Circulation Section. Therefore, based on the increase numbers of trucks, the CalEEMod fleet mixture truck subcategories should be proportionally adjusted with the higher numbers of trucks after using the recommended ITE 0.64 daily truck trip rate. In the modeling inputs, however, the individual vehicle category percentages totaled 6.74 percent, which is lower than the percentage of trucks in the Traffic Study. In order to avoid underestimating project operational and related air quality and health effect impacts, the Air Quality Analysis, HRA and FEIR should be revised using the following truck percentages: LHD2 = 0.0645, MHD = 0.0865, HHD = 0.2300.

On-Road Truck Trip Lengths

8. In the DEIR, the Lead Agency does not describe potential truck activities that involve the proposed warehouse trucks. Since goods can be brought from the Ports of Long Beach and Los Angeles as well as other locations and delivered via truck to the proposed distribution centers and distributed via truck to both in- and out-of-state locations, the Final EIR should include more detailed discussion to justify the trip lengths used in the air quality and health risk affect analyses. In the CalEEMod output sheets provided in Appendix B of the DEIR appendices, the modeling used a 16.6 mile one-way trip distance was used by trucks employed by perspective tenants and an 8.4 one-way trip distance was used by trucks not employed by perspective tenants was used to estimate operational air quality impacts for trucks moving goods for the proposed facility. Since the port areas are over 70 miles away from the project site and that trucks will be serving other destinations within the basin and out of state, the SCAQMD staff recommends, absent a tenant-specific analysis with trip length information, that all applicable analyses be revised in the Final EIR using a one-way trip length that more accurately estimates air quality emission and related impacts based on the anticipated activities and distances described in the DEIR. If the Lead Agency is uncertain of the types of tenants or the trip lengths, the Lead Agency could alternatively limit activities, as a condition of a tenant's occupancy, to levels described in the analysis. Otherwise, long-term project air quality impacts for operations and other relative analyses will be substantially underestimated.

Use of an Un-Refrigerated Warehouse Land Use CalEEMod Model Input

9. Based on a review of the project's emissions calculations in Appendix B: Air Quality Technical Appendix⁴ (CalEEMod Output Sheets), the Lead Agency determined the proposed Project's air quality impacts using emission factors for unrefrigerated warehouses/truck activity. However, in mitigation measure MM C-12 to reduce

⁴ Appendix B: Air Quality Technical Appendix.

Operational Emissions starting on Page 4.C-69, the Lead Agency refers to the use of Transportation Refrigeration Units (TRUs) at the project site. 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 analysis then MM C-12 should be incorporated into the project and remain in the Final EIR.

Mitigation During Operations (MERV Filters and HVAC Systems)

10. Starting on page 4.C-54, the Lead Agency discusses Health Risk results concluding that during occupancy, adverse air quality impacts from vehicles traveling on the existing I-10 and SR-210 freeways would expose sensitive receptors to substantially significant levels of Toxic Air Contaminants (TACs) even with mitigation due to existing ambient air pollution in the vicinity. The SCAQMD staff recognizes the many factors lead agencies must consider when siting new housing. On page 4.C-70, the Lead Agency is proposing mitigation to reduce the proposed project's significant health impacts. Further, many mitigation measures should be considered in the Final CEQA document that have been proposed for other projects as well to reduce exposure, including building filtration systems, placing the residential units furthest from the freeway, making any windows facing the freeway inoperable, building sound walls, planting vegetation barriers, etc. However, because of the potentially significant health risks involved, it is critical that any proposed mitigation must be carefully evaluated prior to determining if those health risks would be brought below recognized significance thresholds.

Limits to Enhanced Filtration Units

11. The Lead Agency should consider the limitations of the proposed enhanced filtration mitigation (Measure C-16) on page for this project on the housing residents. For example, in a study that SCAQMD conducted to investigate filters⁵ similar to those proposed for this project, costs were expected to range from \$120 to \$240 per year to replace each filter. In addition, because the filters would not have any effectiveness unless there is a HVAC system that draws enough air to support eh filter system and that the HVAC system is fully operable throughout the life of the project. In addition, there may be increased energy costs to the resident. The proposed mitigation also assumes that the filters operate 100 percent of the time while residents are indoors to reduce significant TAC impacts up to 33 in one million compared with the SCAQMD

⁵ <http://www.aqmd.gov/docs/default-source/ceqa/handbook/aqmdpilotstudyfinalreport.pdf?sfvrsn=0> . This study evaluated filters rated MERV 13+ while the proposed mitigation calls for less effective MERV 12 or better filters. See also CARB link for the "Status of Research on Potential Mitigation Concepts to Reduce Exposure to Nearby Traffic Pollution" (August 23, 2012):

http://www.arb.ca.gov/db/search/search_result.htm?q=Potential+Mitigation+Concepts+to+Reduce+Exposure+to+Nearby+Traffic+Pollution&which=arb_google&cx=006180681887686055858%3Abew1c4wl8hc&srch_words=&cof=FOURID%3A11 .

threshold of 10 in one million. It should be noted that these filters have no ability to filter out any toxic gasses from vehicle exhaust and would not reduce exposure when residents are outside of their homes, e.g. children playing outdoors, being around a pool area, residents relaxing or walking outside, working outside on a balcony, cleaning a vehicle, etc. In the Final CEQA document, the presumed effectiveness and feasibility of this mitigation should therefore be evaluated in more detail prior to assuming that it will sufficiently alleviate near truck exhaust exposures. Otherwise, impacts to residents from exposure to TACs will remain substantially significant and unavoidable.

Mitigation Measures for Operational Air Quality Impacts (Mobile Sources)

12. The California Air Resources Board has classified the particulate portion of diesel exhaust emissions as carcinogenic. During project operations, the Lead Agency has determined that project operation emissions are significant for Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NO_x), Carbon Monoxide (CO), Particulate Matter (PM₁₀) and PM_{2.5}, primarily from on-road mobile sources including truck activity emissions. The SCAQMD staff therefore recommends the following change and additional measures that should be incorporated into the Final EIR to reduce exposure to sensitive receptors and reduce project air quality impacts:

Recommended Change:

MM C-13

- The City shall require future commercial and industrial projects (to) promote the expanded use of renewable fuel and low-emission vehicles by including ~~one or both of~~ the following project components: provide preferential parking for ultra-low emission, zero-emission, and alternative-fuel vehicle; and provide electric vehicle charging stations within the development.

Additional Mitigation Measures:

- 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. If this isn't feasible, consider other measures such as incentives, phase-in schedules for clean trucks, etc.
- Provide minimum buffer zone of 300 meters (approximately 1,000 feet) between truck traffic and sensitive receptors based on guidance from the California Air Resource Board (CARB) guidance.⁶
- 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,

⁶ CARB: Air Quality and Land Use Handbook: A Community Health Perspective, April 2005, Page4 for Distribution Centers.

the Lead Agency should commit to re-evaluating the project through CEQA prior to allowing this higher activity level.

- Design the site such that any check-in point for trucks is well inside the facility to ensure that there are no trucks queuing outside of the facility.
- On-site equipment should be alternative fueled.
- Provide food options, fueling, truck repair and or convenience stores on-site to minimize the need for trucks to traverse through residential neighborhoods.
- Improve traffic flow by signal synchronization.
- Have truck routes clearly marked with trailblazer signs, so that trucks will not enter residential areas.
- Because the proposed Project generates 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 CEQA document, the Lead Agency should require 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.

At a minimum, require 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 occupant should also be required to accept and use them.

Electric Vehicle (EV) Charging Stations

13. 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 the proposed facility 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.⁷ 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

14. Because proposed project generate significant regional NOx operational impacts, the SCAQMD staff recommends that the project pro-actively take 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 any large truck operation uses within the project area.

Mitigation Measures for Operational Air Quality Impacts (Other)

15. In addition to the mobile source mitigation measures identified above, the SCAQMD staff recommends the following on-site area source mitigation measures below to reduce the project's regional air quality impacts from VOC, CO, NOx, PM10 and PM2.5 emissions during operation. These mitigation measure should be incorporated pursuant to CEQA Guidelines §15126.4, §15369.5.

- 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.
- 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.

Transportation

- Make a commitment to install electric car charging stations (not just wiring infrastructure) for both non-residential and residential uses at the project site.
- Create local "light vehicle" networks, such as neighborhood electric vehicle (NEV) systems.

⁷ http://ladbs.org/LADBSWeb/LADBS_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf

Energy

- Make a commitment that the project site will include a solar photovoltaic or an alternate system with means of generating renewable electricity.

Other

- Provide outlets for electric and propane barbecues in residential areas.

Mitigation Measures for Construction Air Quality Impacts

16. Based on a review of the DEIR the Lead Agency determined that the proposed project will result in significant air quality impacts during construction. Specifically, the air quality analysis demonstrated that the proposed project will exceed the SCAQMD's CEQA regional construction significance thresholds for NOx. Therefore, the SCAQMD staff recommends the following changes and additional measures be incorporated into the proposed project and FEIR to reduce significant project impacts in addition to the measures included in the Draft EIR starting on page 4.C-67.

Recommended Change:

MM C-2 During project construction, the City shall require internal combustion engines/construction equipment operating on all future project sites ~~greater than five acres~~ to meet the following:

- ~~At least 50 percent of construction equipment greater than 250 hp, which are on-site for 6 or more consecutive days, shall meet Tier 3 emissions standards or better and be outfitted with BACT devices (e.g., Level 3 diesel emissions control devices) certified by CARB.~~
- Consistent with measures that other lead agencies in the region (including Port of Los Angeles, Port of Long Beach, Metro and City of Los Angeles)⁸ have enacted, require all on-site construction equipment to meet EPA Tier 3 or higher emissions standards according to the following:
- 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.

⁸ For example see the Metro Green Construction Policy at:
http://www.metro.net/projects_studies/sustainability/images/Green_Construction_Policy.pdf

- ~~Post January 1, 2016, in addition to the Tier 3 standards specified above, an additional 20 percent or more of construction equipment greater than 250 hp, which are on-site for 6 or more consecutive days, shall meet Tier 4 emissions standards or better and be outfitted with BACT devices (e.g., and be outfitted with BACT devices (e.g., Level 3 diesel emissions control devices) certified by CARB.~~

Recommended Additions

- Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the lead agency shall use trucks that meet EPA 2007 model year NOx emissions requirements.
- A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.
- Encourage construction contractors to apply for SCAQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for SCAQMD "SOON" funds. The "SOON" program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website:
<http://www.aqmd.gov/home/programs/business/business-detail?title=vehicle-engine-upgrades>

For additional measures to reduce off-road construction equipment, refer to the mitigation measure tables located at the following website:
<http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies> .