



South Coast Air Quality Management District

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SENT VIA E-MAIL AND USPS:

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Mitigated Negative Declaration (MND) for the Villa Verona Apartment Community Project

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

Project Description

The proposed project consists of the construction of 372 multi-family residential units on approximately 17.33 acres. The proposed project site is currently vacant land that is surrounded by a student service center to the north, the BNSF/Metrolink and Interstate 215 to the east, the Perris Union High School Bus Barn to the south, and single family dwellings to the west.

Air Quality Analysis/Health Risk Assessment (HRA)

In the air quality analysis, the Lead Agency found that regional and localized construction and operational emissions would be less than significant. Due to the proximity to BNSF/Metrolink and Interstate 215, the Lead Agency performed a Diesel Emissions HRA to disclose the health risks of future residents. The HRA concluded that the cancer risk would be 14.20 in one million, which would exceed SCAQMD’s cancer risk threshold of 10 in one million. The Lead Agency proposes to incorporate mitigation measures requiring minimum efficiency reporting value (MERV) 16 filters to remove diesel particulates and lowering cancer risk to 1.42 in one million. The SCAQMD staff has concerns about the HRA. The HRA used outdated AERMOD and EMFAC models. Details are included in the attachment.

The SCAQMD staff is available to work with the Lead Agency to address these concerns and any other air quality and HRA questions that may arise. Please contact Jack Cheng, Air Quality Specialist 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

JW:LS:JC
RVC170224-02
Control Number

ATTACHMENTAir Quality Analysis/Health Risk Assessment (HRA) Analysis

1. The Lead Agency used AERMOD (version 15181) to prepare the dispersion modeling for the HRA. AERMOD (version 16216) is the most recent available version, and it was available at the time of the analysis (10/12/2016). Therefore, the SCAQMD staff recommends that the Lead Agency revise the dispersion modeling for the HRA by using AERMOD (version 16216) in the Final MND.
2. The Lead Agency used EMFAC2011 to generate emission factors. EMFAC2014 is the most recent available version that has superseded EMFAC2011 since December 30, 2014¹. Therefore, the SCAQMD staff recommends that the Lead Agency revise the analysis and use EMFAC2014 in the Final MND.
3. The Lead Agency estimated diesel vehicle population using the URBEMIS land use computer model ("I-215 Vehicle Emissions 2018.xls" > For 215). The SCAQMD staff no longer recommends using the URBEMIS land use model. Instead, the SCAQMD staff recommends using EMFAC2014 to estimate diesel vehicle population.
4. The SCAQMD staff is concerned that the HRA may have underestimated the cancer risk from the proposed project. In the HRA, the Lead Agency used the AERMOD dispersion model to estimate DPM concentrations from the diesel vehicles generated by the proposed project and used the 2015 revised OEHHA guidelines to estimate the health risks to sensitive receptors in the project vicinity. The SCAQMD staff recommends that the Lead Agency revise the HRA based on the following comments:
 - a) 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 70-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 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).
 - b) The Lead Agency used a 70-year MEIR-Residential Exposure Scenario. The SCAQMD staff recommends using a 30-year Residential Exposure Scenario consistent with SCAQMD's Risk Assessment Procedures, which can be found in Table 9.1 of SCAQMD Risk Assessment Procedures, Attachment M².
 - c) The Lead Agency used the mean breathing rates to calculate a weighted average breathing rate. Consistent with SCAQMD's Risk Assessment Procedures, the SCAQMD staff recommends that the Lead Agency use the 95th percentile breathing rates and the other parameters such as fraction of time at home, exposure frequency, and age specific factor³.

¹ EMFAC2014: <https://www.arb.ca.gov/emfac/2014/>.

² Available online at <http://www.aqmd.gov/docs/default-source/permitting/attachment-m.pdf>.

³ *Ibid.*

Limits to Enhanced Filtration Units

5. In a study that SCAQMD conducted to investigate filters⁴, 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 the HVAC system is running, there may be increased energy costs to the resident. It is typically assumed that the filters operate 100 percent of the time while residents are indoors, and it does not account for the times when the residents have their windows or doors open or are in common space areas of the project. These filters also have no ability to filter out any toxic gases from vehicle exhaust. The presumed effectiveness and feasibility of any filtration units, if proposed as a mitigation measure, should therefore be evaluated in more detail prior to assuming that they will sufficiently alleviate near roadway exposures.

Recommended Changes to Mitigation Measure 5

6. To be consistent with the advisory recommendation of avoiding siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day as set forth in the California Air Resources Board's 2005 handbook⁵, the SCAQMD staff recommends that the Lead Agency revise Mitigation Measure 5 as follows:

Lots within ~~470~~ 500 feet the I-215 Freeway shall be required to install high efficiency Minimum Efficiency Reporting Value (MERV) filters of MERV 16 or better...For residential-owned units for lots within ~~470~~ 500 feet of the freeway, the Homeowner's Association (HOA) shall incorporate requirements for long-term maintenance in the Covenant Conditions and Restrictions and inform homeowners of their responsibility to maintain the MERV 16 filter in accordance with the manufacturer's recommendations...

Compliance with SCAQMD Rule

7. As stated in Section 8, Hazards and Hazardous Materials, on Page 51 in the MND, "railroad rights-of-way are sometimes the site of hazardous materials including use of pesticides, herbicides, petroleum compounds and heavy metals (arsenic, etc.) used for track maintenance, or spills from railcars." Although such issues have not been observed at the proposed project site or the adjacent rail track (Page 51), in the event that petroleum hydrocarbons are expected to be encountered during excavation and any other soil disturbing activities, the Final MND should include a discussion to demonstrate compliance with the requirements of SCAQMD Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil.

⁴ This study evaluated filters rated MERV 13+ while the proposed mitigation calls for less effective MERV 12 or better filters. Accessed at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/aqmdpilotstudyfinalreport.pdf>.

⁵ California Air Resources Board. April 2005. "Air Quality and Land Use Handbook: A Community Health Perspective." Accessed at: <http://www.arb.ca.gov/ch/landuse.htm>.