South Coast
Air Quality Management District
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Mr. Ronald J. Kosinski
Department of Transportation, District 7
Division of Environmental Planning
100 South Main Street, MS-16A
Los Angeles, CA 90012

Ms. Yi Tian
Environ
18100 Von Karman Avenue, Suite 600
Irvine, CA 92612

Dear Mr. Kosinski and Ms. Tian:

Protocol for the Air Quality and Health Risk Assessments (AQ/HRA) for the I-710 Corridor Environmental Impact Report / Environmental Impact Statement (EIR/EIS)

The South Coast Air Quality Management District has reviewed the Protocol for the Air Quality and Health Risk Assessments (AQ/HRA) for the I-710 Corridor Environmental Impact Report/Environmental Impact Statement (EIR/EIS). The SCAQMD staff recognizes the need for improvements to the I-710 freeway to address the congestion and safety issues which currently exist as a result of population growth, cargo container growth, increasing traffic volumes, and aging infrastructure. It is important that as improvements are made to the I-710 that the air quality and public health impacts are adequately quantified. The SCAQMD staff has reviewed the I-710 Air Quality/Health Risk Assessment (AQ/HRA) Protocol (Protocol) and participated in conference calls as part of the Air Agency Technical Working Group (AATWG). The following are the SCAQMD staff comments on the Protocol.

The SCAQMD staff is concerned that the Protocol as currently drafted will not sufficiently quantify air quality impacts. In general, the Protocol should include the methodology and assumptions to quantify regional and localized emissions impacts from the construction and operational emissions of the proposed project. The SCAQMD staff recommends that the Protocol include the following:

- Regional Criteria Pollutant Analysis: The Protocoll should include quantify peak daily criteria pollutants of VOC, NOx, SOx, CO, PM10 and PM2.5 and include the highest daily emissions that can occur from either the construction, operational, or overlapping construction and operational emissions consistent with the SCAQMD's Air Quality Handbook which can be found at http://aqmd.gov/ceqa/hdbk.html.
- Localized Criteria Pollutant Analysis: The Protocol should include a localized criteria pollutant air quality analysis for the construction and operational emissions of NOx, CO, PM10, and PM2.5 consistent with the SCAQMD's guidance for Localized Significance Thresholds which can be found at http://aqmd.gov/ceqa/handbook/LST/LST.html.
- Air Toxics Analysis: The Protocol should include a health risk assessment to quantify exposure to air toxic emissions from the construction and operation of the proposed project. The SCAQMD staff has developed a methodology for estimating health risk from air toxic related mobile sources which can be found at http://aqmd.gov/ceqa/handbook/mobile_toxic/mobile_toxic.html.
- Greenhouse Gas Emissions: The Protocol should include the methodology to quantify greenhouse gas emissions from the construction and operation of the proposed project. The SCAQMD staff has developed a "Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold" that includes a section on "GHG Analysis Recommendations" which can be found at http://aqmd.gov/ceqa/handbook/GHG/GHG.html.

The Protocol should clearly state the significance thresholds that will be used for the I-710 project. Since the proposed project will occur wholly within the SCAQMD's jurisdiction and CalTrans has not established significance thresholds, the SCAQMD staff recommends that CalTrans use the SCAQMD's air quality significance thresholds which can be found at http://aqmd.gov/ceqa/hdbk.html. If CalTrans declines to use the SCAQMD's significance thresholds, it is obligated as the lead agency to analyze all potential adverse impacts, make a determination of significance as required by CEQA Guidelines Section 15064, and implement feasible mitigation measures as necessary.

The SCAQMD staff is concerned that the lead agency is limiting the number of alternatives that will be evaluated and consequently presented to the public and the decision makers. Section 2.2 of the Protocol states, "It is envisioned that the draft EIR/EIS will ultimately evaluate two alternatives plus the no build scenario." CEQA Guidelines Section 15126.6 requires an EIR to describe a range of reasonable alternatives to the project or location of the project... SCAQMD staff requests that the lead agency consider a range of alternatives consistent with the aforementioned Guidelines. A wide range of alternatives will provide the public agency decision makers and the public in general with sufficient information with which to judge the environmental effect of the project and identify possible ways to minimize the significant effects. Please refer to the SCAQMD February 17, 2009 comments regarding alternatives for the I-710 project.

The SCAQMD staff appreciates the opportunity to comment on the Protocol and is available to work with the CalTrans and its consultants to address these issues and any other questions that may arise. More detailed and additional comments are provided in the attachment. Please contact me at (909) 396-3105 if you have any questions regarding these comments.

Sincerely,

Susan Nakamura
Planning Manager

Attachment

JB

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Control Number

Attachment A
Protocol for the Air Quality and Health Risk Assessments (AQ/HRA) for the I-710 Corridor Environmental Impact Report / Environmental Impact Statement (EIR/EIS)

CEQA Significance Thresholds

The SCAQMD staff recommends that CalTrans use the SCAQMD's regional and localized air quality significance thresholds. In an email from Yi Tian dated February 17, 2009, the AATWG was informed that CalTrans "has not and has no intention to develop thresholds of significance for CEQA....Rather, [CalTrans] will continue to analyze the significance on a case-by-case basis looking at the degree and intensity of the impacts." Since this project as currently described will occur wholly within the SCAQMD's jurisdiction, SCAQMD staff recommends that SCAQMD significance thresholds. Any other thresholds used by the lead agency will be evaluated by SCAQMD staff to determine if they are appropriate and applicable. SCAQMD significance thresholds can be found at:

- Regional Criteria Pollutant and Air Toxic Significance Thresholds: http://www.aqmd.gov/ceqa/handbook/signthres.pdf.
- NOx, CO, and PM10 Localized Significance Thresholds: http://aqmd.gov/ceqa/handbook/LST/LST.html.
- PM2.5 Regional and Localized Significance Thresholds: http://aqmd.gov/ceqa/handbook/PM2_5/PM2_5.html.
- Greenhouse Gas Significance Thresholds: http://aqmd.gov/ceqa/handbook/GHG/GHG.html.

Air Quality Analysis

Quantification of Construction Air Quality Impacts: SCAQMD staff recommends that the Protocol clearly state that the air quality analysis will quantify criteria pollutant emissions, greenhouse gas emissions, and air toxic emissions from both project construction activities and project operation. On Table 3-1b, SCAQMD staff recommends that the construction activity (Page 3-5) be moved from being a Potential Additional Analysis to Table 3-1a as an analysis that is proposed for the project.

The Protocol as currently drafted is vague regarding the commitment to quantify air quality impacts from construction activities. Page E-5 states that "emission estimates from construction activities... for the criteria pollutants (PM_{10}, $PM_{2.5}$, CO, SO_2, and NO_2), ROG (a precursor to ozone) and greenhouse gases will be estimated from the construction activities. This is not consistent with Page 3-8, where it is stated that "if they are to be included, emissions from construction activity will be quantified" and Page 3-11, where it is stated that "quantification of GHG emissions for construction will be done only if required by the lead agency." It is expected that the construction schedule will be substantial and will be in excess of the 3 or 5 years as mentioned on Page 3-8. In addition, the emissions from a project of this magnitude are likely to be substantial and to

ensure CEQA compliance, the Lead Agency must quantify the construction emissions for the project. Indirect construction impacts such as emissions from the disturbed traffic flow due to detours, closures, and temporary terminations should also be included in the emissions calculations.

In the event that project-specific construction information is not available at the time of analysis, SCAQMD staff recommends that the Lead Agency use prior experience with similar Projects to estimate the worst-case scenario in terms of the maximum number of pieces of equipment to be used on any one day during construction. In addition, the location of construction and equipment staging areas must also be included in the analysis as this is important when quantifying and determining the significance of localized air quality impacts.

Page 3-10 states that "emissions from various material handling activities in construction will be calculated using the methods and equations available in SCAQMD CEQA Air Quality Analysis Handbook". SCAQMD is currently in the process of developing an "Air Quality Analysis Guidance Handbook" to replace the CEQA Air Quality Handbook and there are sections of the 1993 Handbook which are obsolete. SCAQMD staff recommends that the Lead Agency consult with SCAQMD staff to ensure that the methods and equations used are consistent with SCAQMD approved methodologies. SCAQMD staff also recommends that once the emissions are quantified, that they are compared to the SCAQMD regional thresholds in order to determine the CEQA significance of the Project's air quality impacts.

Quantification of Greenhouse Gas Emissions: In a number of comment letters on CEQA documents prepared by the California Attorney Generals Office, the Attorney General has unequivocally stated that GHG emission and global climate change are impacts that must be analyzed in CEQA documents. Further, a determination of significance must be made, even in the absence of established GHG significance thresholds. Finally, if GHG emissions are concluded to be significant, mitigation measures must be identified. Therefore, the discussion in the EIR/EIS should include a quantification analysis of GHG emissions from the proposed project (i.e., construction as well as operation).

Quantification of Peak Daily Emissions: The peak daily emissions should be based on the peak daily emissions that could occur during the construction, operational, and overlapping construction and operational phase of the proposed project. According to Page 2-2, the project build-out year is anticipated to be 2035, with project construction occurring in phases. It is the SCAQMD staff's understanding that operational of the I-710 will continue during the construction, thus construction and operational emissions should be assessed together to assess peak daily emissions from the proposed project. SCAQMD staff recommends that peak daily construction and operational emissions be compared with the SCAQMD operational daily significance thresholds in the EIR/EIS.

Dispersion Modeling: On Table 3-1a (Pages 3-2 and 3-3), there are two types of dispersion modeling listed – short-range dispersion modeling for ambient concentrations and full dispersion modeling. However, within the text of the Protocol, there is only a description of the use of AERMOD to do the dispersion modeling. Please provide a description of the differences between the two types of modeling and the assumptions to be used for each.

In addition, on Figure 2, Page 3-7, it is unclear whether the LST analysis will be performed using the Air Dispersion Model or using the Short-Range Dispersion Model. Since the SCAQMD's LST methodology will be used, please update Figure 2 and Table 3-1a with references to LST, as clarification.

On Page 3-13, the dispersion modeling for criteria pollutants will be done "according to the methods and used by SCAQMD in their modeling to determine localized significance thresholds (LSTs)". SCAQMD staff supports the decision to use the LST methodology to determine the Project's localized impacts from NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions from both construction and operation of the Project. SCAQMD staff recommends that the lead agency utilize the numerical thresholds within the LST methodology (Page 1-5 of LST Methodology) to determine the CEQA significance of localized air quality impacts.

Mobile Source Emission Factors: It is stated on Page 3-9 that "the emission factors for heavy-duty trucks from EMFAC model will be accordingly adjusted to quantify the reductions for the above regulations/programs" and on Page 3-10, that "OFFROAD factors will be adjusted to account for the impact of the CARB's regulation for off-road in-use vehicles". However, no specific information or methodology is provided in the Protocol. SCAQMD staff recommends that the Lead Agency provide a more thorough description of the methodologies and assumptions used to develop these adjusted emission factors in the Protocol.

Health Risk Assessment

SCAQMD staff recommends that the cancer risks from air toxics emissions during project construction be included and analyzed in the Health Risk Assessment in addition to the emissions from project operation due to the extensive construction schedule anticipated. A more conservative baseline would be based on regulations which are approved and adopted. As noted earlier, if any additional emission reductions are to be applied, the methodology and assumptions used to calculate those reductions must be included in the Protocol.

Since the I-710 freeway will continue to be operational during project construction and anticipated long duration of the construction of the proposed project, the SCAQMD staff recommends that the air toxics emissions include both construction and operational emissions. Therefore, SCAQMD staff recommends that the project's operational

emissions be estimated from the time that the first phase of project construction begins. Similar to the baseline emission rate estimate, the air toxics emissions of vehicles using the I-710 freeway can be estimated for the entire 70-year duration, starting from project ground-breaking. In addition, the total air toxics emissions from project construction should be estimated and added to the vehicular emissions and then averaged over the 70-year exposure duration. Due to the nature of the project and the potential for disturbed traffic flow due to detours, closures, and temporary terminations, it is also important to model the air toxics emissions along the detour routes, as those routes might impact sensitive receptors.

Mobile Source Air Toxics: The SCAQMD's Multiple Air Toxics Exposure Study (MATES-III) focused on the carcinogenic risks from exposure to air toxics. MATES-III included two years of ambient monitoring for air toxics and also developed an updated toxics emissions inventory for the South Coast Air Basin. DPM was found to be the key driver for air toxics risk, accounting for an estimated 84 percent of the total risk. The other dominant air toxics include benzene, 1,3-butadiene, formaldehyde, and acetaldehyde. This is consistent with the six priority mobile source air toxics (DPM, benzene, 1.3-butadiene, acetaldehyde, formaldehyde, and acrolein, which was not analyzed in MATES-III) and SCAQMD staff agrees with the use of these toxic emissions to determine the health risks associated with the Project. It should be noted that OEHHA recently updated the acute and chronic RELs for acetaldehyde, acrolein, and formaldehyde.

Quantification of All Roadway Sections: Page 3-10 states that emissions of the six priority MSATs will be quantified for any roadway section with AADT greater than 150,000 vehicles. This is not consistent with the methodology discussed and presented on the January 22, 2009 conference call, where emissions from *all* roadways that would be affected by the project within the project area would be analyzed. Please remove the reference to the 150,000 vehicles.