3.3 AIR QUALITY AND GLOBAL CLIMATE CHANGE

2014). These other rules would apply to the project, but would not need to be directly implemented during the planning stage of this project.

SJVAPCD Rule 2201: New and Modified Stationary Source Review

Stationary sources at the station (such as natural gas heaters) would need to be permitted by the SJVAPCD and would have to comply with best available control technology (BACT) requirements, if applicable. Many stationary sources would be associated with heavy maintenance facility (HMF) activities, such as exterior washing, welding, material storage, cleaning solvents, abrasive blasting, painting, oil/water separation, and wastewater treatment and combustion. Permits would need to be obtained for equipment associated with these activities from the SJVAPCD and would need to comply with applicable new source review rules such as BACT requirements.

SJVAPCD 8011: General Requirements—Fugitive Dust Control Measures

According to Rule 8011, the SJVAPCD requires the implementation of control measures for fugitive dust emission sources. The project would also implement the mandatory control measures listed in Table 6-2 in the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI) (SJVAPCD 2002) to reduce fugitive dust emissions. These measures are not considered mitigation measures because they are required by law but will be required during project construction and implementation as part of project design.

Many of the control measures required by the SJVAPCD are the same or similar to the control measures listed in the 2005 Statewide Program EIR/EIS. The SJVAPCD Rule 8011 requirements are listed below:

- All disturbed areas, including storage piles, which are not being actively used for construction purposes, will be effectively stabilized for dust emissions using water or a chemical stabilizer/suppressant, or covered with a tarp or other suitable cover or vegetative ground cover.
- All onsite unpaved roads and offsite unpaved access roads will be effectively stabilized for dust emissions using water or a chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities will be effectively controlled for fugitive dust emissions by an application of water or by presoaking.
- With the demolition of buildings up to six stories in height, all exterior surfaces of the building will be wetted during demolition.
- All materials transported offsite will be covered or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container will be maintained.
- All operations will limit or expeditiously remove the accumulation of mud or dirt from
 adjacent public streets at the end of each workday. The use of dry rotary brushes is
 expressly prohibited except where preceded or accompanied by sufficient wetting to limit the
 visible dust emissions. Use of blower devices is expressly forbidden.
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles will be effectively stabilized for fugitive dust emissions using sufficient water or a chemical stabilizer/suppressant.



- Within urban areas, trackout will be immediately removed when it extends 50 or more feet from the site and at the end of each workday.
- Any site with 150, or more, vehicle trips per day will prevent carryout and trackout.

SJVAPCD Rule 9510: Indirect Source Review

Referred
Formments
To Page 2053 In December 2005, the SJVAPCD adopted the Indirect Source Rule (Rule 9510) to meet the SJVAPCD's emission reduction commitments in the PM₁₀ and Ozone Attainment Plans. Indirect Source Review (ISR) regulation applies to any transportation project in which construction emissions equal or exceed 2 tons of nitrogen oxide (NO_x) or PM₁₀ per year. Construction of the HST alignment (specifically, onsite off-road construction exhaust emissions) would be subject to ISR. Accordingly, the Authority would have to submit an Air Impact Assessment (AIA) application to the SJVAPCD with commitments to reduce construction exhaust NO_x and PM₁₀ emissions by 20% and 45%, respectively. According to SJVAPCD, if successful, air quality mitigation measure AQ-MM#1 (use of cleaner-burning construction equipment) might, as a practical matter, satisfy these numerical reduction requirements; if not, AQ-MM#4 (offset project construction emissions through an SJVAPCD Voluntary Emission Reduction Agreement [VERA]) would satisfy the ISR requirements. Operation of the HST would be exempt under Sections 4.1 and 4.2 of Rule 9510.

3.3.3 Pollutants for Analysis

Three general classes of air pollutants are of concern for this project: criteria pollutants, toxic air contaminants (TACs), and GHGs. Criteria pollutants are those for which the U.S. EPA and the State of California have set ambient air quality standards, or that are chemical precursors to compounds for which ambient standards have been set. TACs of concern for the proposed project are seven MSATs identified by the U.S. EPA as having significant contributions from mobile sources: acrolein, benzene, 1,3-butadiene, diesel particulate matter and diesel exhaust organic gases, formaldehyde, naphthalene, and polycyclic organic matter. GHGs are gaseous compounds that limit the transmission of radiated heat from the earth's surface to the atmosphere.

3.3.3.1 **Criteria Pollutants**

For these pollutants, both federal and state ambient air quality standards have been established to protect public health and welfare. The following sections briefly describe each pollutant.

<u>Ozone</u>

CARB inventories two classes of hydrocarbons: total organic gases (TOGs), and reactive organic gases (ROGs). ROGs have relatively high photochemical reactivity. The principal nonreactive hydrocarbon is CH₄, which is also a GHG. The major source of ROG is the incomplete combustion of fossil fuels in internal combustion engines. Other sources of ROGs include the evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products. Adverse impacts on human health are not caused directly by ROG, but rather by reactions of ROG that form secondary pollutants. ROGs are also transformed into organic aerosols in the atmosphere, contributing to higher levels of fine particulate matter and lower

Definition of O₃

O₃ is a colorless toxic gas found in the earth's upper and lower atmospheric levels. In the upper atmosphere, O₃ is naturally occurring and helps to prevent the sun's harmful ultraviolet rays from reaching the earth. In the lower atmosphere, O₃ is man-made. Although O₃ is not directly emitted, it forms in the lower atmosphere through a chemical reaction between hydrocarbons and oxides of nitrogen, also referred to as VOC and NOx, which are emitted from industrial sources and from automobiles.



Staff Response to Issues Raised on Fresno to Bakersfield Verbal Comments
Section Final EIR/EIS

This brief staff report addresses key issues raised in verbal comments received at the Authority Board meeting held on May 6, 2014.

This memorandum was prepared by Diana Gomez, Regional Director, and Mark McLoughlin, Director of Environmental Services with additional support by Authority staff, and technical experts with the Project Management Team, and the URS/HMM/Arup JV.

I. Preventing Risk of Valley Fever

Several comments raised concerns regarding the risk of Valley Fever posed by construction of the high-speed train system. In addition, the County of Kings Department of Public Health, the City Attorney of Bakersfield, and Mehta letters raised Valley Fever as an issue. The EIR/EIS includes an evaluation of potential Valley Fever impacts from dust caused by ground disturbing activities during grading. The proposed project includes a series of fugitive dust reduction measures as design features in Chapter 3.3, including watering areas that will be disturbed and suspending dust-generating activities when wind speed exceeds 25 mph. Based on the application of these measures the evaluation concludes that the risk of Valley Fever from project construction would be a less-than-significant impact.

In light of specific Valley Fever concerns raised in public testimony, staff recommends that the Authority add specific requirements to the Construction Safety and Health Plans (CSHPs) regarding preventive measures to avoid Valley Fever exposure (Ch. 3.11, Design Features, 3.11.6). The recommendation is that the following be an additional design feature for Ch. 3.11, "Safety and Security."

The Construction Safety and Health Plan shall include the following:

- 1. Train workers and supervisors on how to recognize symptoms of illness, and ways to minimize exposure, such as washing hands at the end of shifts.
- 2. Provide washing facilities nearby for washing at the end of shifts.
- 3. Provide vehicles with enclosed, air-conditioned cabs and make sure workers keep the windows closed. Equip heavy equipment cabs with high efficiency particulate air (EPA) filters.
- 4. Make NIOSH-approved respiratory protection with particulate filters as recommended by the California Department of Public Health available to workers who request them.