

DOCKETED

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From: Permit Services Department, Technical Services
San Joaquin Valley Air Pollution Control District

Subject: Mission Rock Energy Center

As part of the memorandum of understanding (MOU) with the Ventura County Air Pollution Control District (VCAPCD), the San Joaquin Valley Air Pollution Control District (SJVAPCD) has reviewed the modeling protocol for the Mission Rock Energy Center (MREC) submitted by Mission Rock Energy Center, LLC. The proposed project is located within an unincorporated area of Ventura County in between the cities of Santa Paula, CA and Ventura, CA. The project consists of five simple-cycle natural gas fired turbines (up to 276 MW), a diesel engine, and necessary support systems and processes.

The following are the District's comments to the modeling protocol submitted on December 7, 2015.

Existing Meteorological and Air Quality Data

The comment in this section pertains to the *Existing Meteorological and Air Quality Data* section in the modeling protocol.

Based on the District's review of the selected meteorological station, it has been determined that the Camarillo Airport data better represents the wind flow in the area of the project. Because of this, the VCAPCD will require its use for all modeling scenarios. The SJVAPCD has already processed AERMOD ready meteorological data using Camarillo Airport data. This meteorological data was processed without the use of the adjusted U* option and will be made available electronically.

Existing Baseline Air Quality Data

The comment in this section pertains to the *Existing Baseline Air Quality Data* section in the modeling protocol.

Upon review of Table 5 in the modeling protocol (see pg. 11 of the modeling protocol), annual SO₂ does not appear to be included in the table. Based on the passage below (from this webpage: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>), it would appear that SO₂ must still be evaluated for the annual averaging period in ambient air quality analyses (AAQA).

“On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.”

There are currently no areas designated in attainment of the 1-Hour SO₂ standard in the State of California. Therefore, Annual SO₂ standard must also be evaluated for all AAQA's associated with this project.

NO₂ Modeling Analyses

The comment in this section pertains to the *NO₂ Modeling Analyses* section in the modeling protocol (see pg. 14 of the modeling protocol).

Upon review of this section, the District recommends that the project proponent first check with equipment manufacturer(s) to see if they have their own in-stack ratio(s) for their specific equipment. If available, those values should take precedence over the default value of 0.5 or values from any of the other listed sources.

Fumigation Modeling

The comment in this section pertains to the *Fumigation Modeling* section in the modeling protocol (see pg. 16 of the modeling protocol).

Upon review of this section, it is unclear if the project proponent is aware of the recently posted bug regarding fumigation modeling with AERSCREEN. The project proponent should use the recommended workaround proposed by EPA. Please see the following for more information:

Receptor Selection

The comment in this section pertains to the *Receptor Selection* section in the modeling protocol (see pg. 17 of the modeling protocol).

According to the modeling protocol, a second, coarse receptor grid with 500 meter spacing will be used to extend the receptor grid from five (5) kilometers out to ten (10) kilometers. Based on past experiences with similar projects, the District recommends 250 meter spacing as the maximum spacing that should be used for any receptor grid. Additionally, the District recommends that for these types of projects, the receptor grid should be extended out to at least 15 km in order to ensure that the maximum modeled concentrations for each averaging period are captured.

General Comments

The following are general comments regarding the modeling protocol:

- 1) On pg. 18 of the modeling protocol, HARP version 2.03 and the HARP On-Ramp are listed as the programs that will be used to determine the health impacts from air toxics. The project proponent should use HARP2 version 16088 or later for determining all Cancer, Chronic and Acute impacts from the project.
- 2) The following additional information should be provided to the District for review:
 - a. All proposed toxic emission profiles used for the project.
 - b. All modeling inputs and outputs used for the project.
- 3) Upon review of the *Ambient Air Quality Analyses* section (see pg. 18 of the modeling protocol), it is unclear what the procedure will be for performing ambient air quality analyses (AAQA). The process by which the District evaluates AAQA's is as seen in Figure 1. The project proponent should ensure that they follow the same procedure when performing their AAQA.

Conclusion

After reviewing the modeling protocol for the Mission Rock Energy Center, the District has determined that until the comments within this document are fully addressed, a final determination of the acceptability of the modeling protocol cannot be made.

If you have any questions, please contact Mr. Yu Vu at (559) 230-5945.

Sincerely,

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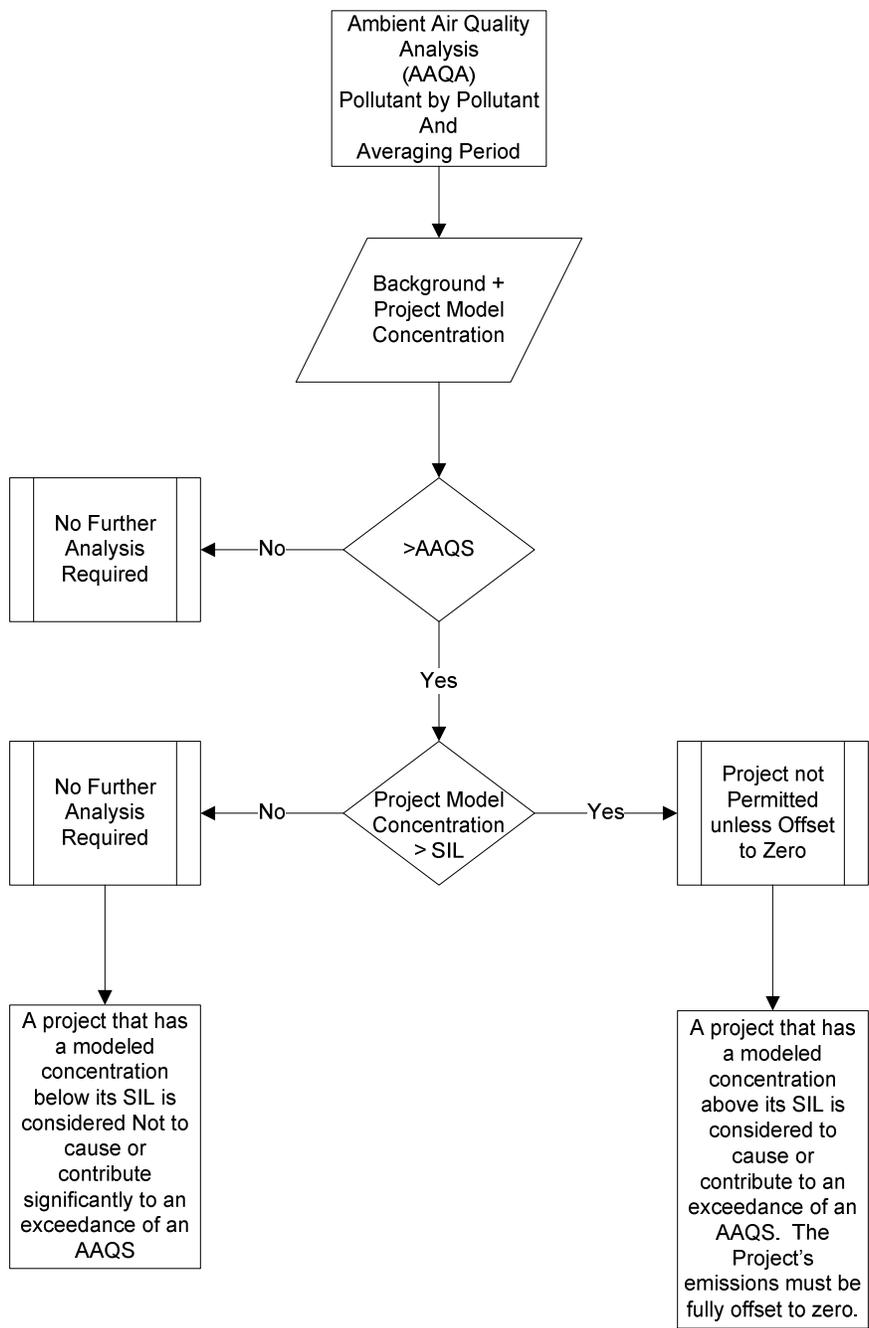


Figure 1 - AAQA Process