CALIFORNIA ENERGY COMMISSION
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August 12, 2008

Mr. David Warner
Director of Permit Services
San Joaquin Valley Unified Air Pollution Control District
1990 East Gettysburg Avenue
Fresno, CA 93726

Dear Mr. Warner:

AVENAL POWER CENTER (08-AFC-1)
PRELIMINARY DETERMINATION OF COMPLIANCE, PROJECT NO. C-1080386

Energy Commission staff appreciates the opportunity to provide written public comments on the Preliminary Determination of Compliance (PDOC) issued by the District on July 11, 2008, for the Avenal Energy project, proposed by Avenal Power Center, LLC.

Energy Commission staff, pursuant to both the Warren-Alquist Act and the California Environmental Quality Act (CEQA), must evaluate whether the facility is likely to conform with applicable laws, ordinances, regulations, and standards, and whether mitigation measures can be developed to lessen potential impacts to a less than significant level. These evaluations may be difficult without additional information from the San Joaquin Valley Air Pollution Control District (SJVAPCD or District) in support of the PDOC.

Equivalency of Emission Reductions

Energy Commission staff is concerned that the integrity of the proposed mitigation may be adversely affected by the annual equivalency demonstration required by SJVAPCD Rule 2201, Section 7. This rule requires the District to demonstrate that emission reduction credits (ERCs) used by the project as offsets are surplus at the time of use.

The applicant's proposed mitigation includes ERCs issued between 1991 and 2002, and some of the ERCs may be subject to discounting at the time of use under Rule 2201, Section 7. An SJVAPCD Draft Staff Report dated July 29, 2008, for revising Rule 2201 indicates that the District will likely fail to demonstrate equivalency for nitrogen oxides (NOx) this year because surplus NOx credits may make up less than 10 percent of the total banked credits. [1] If Rule 2201, Section 7 requires the applicant's ERCs to be

[1] SJVAPCD, Draft Staff Report, Draft Amendments to Rule 2201 (New and Modified Stationary Source Review Rule) and Rule 2530 (Federally Enforceable Potential to Emit). Prepared by Carlos Garcia, Senior Air Quality Engineer. Dated: July 29, 2008.

discounted, or if they are not representative of real or surplus reductions, then Energy Commission staff may need to identify additional mitigation for the project.

Please describe whether District compliance with Rule 2201, Section 7 would require any of the offsets to be subject to discounting. Please also confirm whether the offsets identified for the project (on PDOC p. 47) are representative of real and surplus reductions, taking into account possible discounting under Rule 2201, Section 7. Additionally, please identify the original emission reduction site and date, and the method of reduction, for the ERCs that would be used to offset this project.

Interpollutant Offsets and Particulate Matter Plans

Staff would like to verify that using offsets would not disrupt regional progress in attaining PM10 or PM2.5 standards. Our staff assessment needs to discuss the cumulative impacts of the project in the context of regional planning efforts, including the SJVAPCD 2008 PM2.5 Plan adopted April 30, 2008, and the 2007 PM10 Maintenance Plan. Emission reductions of NOx, directly emitted PM2.5, and sulfur dioxide (SO^2) are needed to demonstrate attainment of the PM2.5 NAAQS in the San Joaquin Valley (p. 6-1 of 2008 PM2.5 Plan), and the "reasonable further progress" calculations in the 2008 PM2.5 Plan shows that about ten times more tons of direct PM2.5 need to be reduced than SO^2 (see Table 8-2 of 2008 PM2.5 Plan).

SJVAPCD Rule 2201, Section 4.13.3 requires the District to conduct an air quality analysis to determine an adequate trading ratio for interpollutant trading. The 2007 PM10 Maintenance Plan (see Appendix E of the Maintenance Plan) indicates that the *minimum* ratio would be one-to-one, but the applicant relied on data from 1997 and 1998 to show that 1.4 tons of SOx reductions would be needed to offset each new ton of PM10 emissions. SJVAPCD in Attachment H of the PDOC incorrectly states that the applicant proposed a one-to-one ratio.

Please describe whether the one-to-one interpollutant trading ratio for SOx reductions-to-PM10 or PM2.5 increases would conform with the reductions specified in the 2008 PM2.5 Plan and the 2007 PM10 Maintenance Plan. Attachment H of the PDOC refers to a District analysis of the interpollutant ratio of one-to-one in an "Appendix A," but the copy of the PDOC provided to Energy Commission Dockets (08-AFC-1) dated July 11, 2008, did not include an "Appendix A" with the Attachment H of the PDOC. Please provide the District analysis that supports compliance with Rule 2201, Section 4.13.3.

NOx Emission Limits

Energy Commission staff concurs with the District that the NOx emission limits for the combustion turbines and duct burners should apply on one-hour rolling averages during all operating conditions, except startup and shutdown periods (as described in PDOC

p. 64 and PDOC Condition 26). However, the one-hour NOx emission limit is not consistently described in the PDOC. Please confirm that the value calculated by the District is 17.20 lb/hr (PDOC Condition 26), not 17.44 lb/hr (as shown on p. 64).

Ammonia Slip Levels

Energy Commission staff recommends limiting ammonia slip to the extent feasible. Although ammonia slip is intrinsic to operation of the selective catalytic reduction system, staff suggests that the District set a performance standard for ammonia slip. Guidance from CARB (Guidance for Power Plant Siting and Best Available Control Technology, September 1999) indicates that an ammonia slip limit of 5 parts per million by volume dry basis (ppmvd) should be achievable. The applicant proposed a condition in response to staff's data request on this issue (from Avenal Power Center LLC, dated June 20, 2008). Please consider revising the ammonia slip limits for the combustion turbines (PDOC Condition 31) with the following language that is similar to the applicant's proposal:

The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15 percent O_2 averaged over one hour. The selective catalytic reduction (SCR) system catalyst shall be replaced, repaired, or otherwise reconditioned within 12 months if the ammonia slip exceeds 5 ppmvd @ 15 percent O^2 over a 24 hour rolling average. The SCR ammonia injection grid replacement, repair, or reconditioning scheduled event may be cancelled if the owner or operator can demonstrate that, subsequent to the initial exceedance, the ammonia slip consistently remains below 5 ppmvd @ 15 percent O^2 averaged over 24 hours, and that the initial exceedance does not accurately indicate expected future operating conditions.

New Source Performance Standards (40 CFR Part 60)

The New Source Performance Standard (NSPS) Subpart KKKK applies to stationary combustion turbines and emissions from any associated duct burners, and it replaces earlier requirements in NSPS Subpart Db and Subpart GG. The PDOC (p. 55) shows requirements from NSPS Subpart Db, although the project appears to be exempt. Similarly, the PDOC (p. 63) states that the turbines meet the applicability requirements of Subpart GG when the project appears to be exempt. Please clarify whether the project is indeed exempt from NSPS Subparts Db and GG.

We appreciate the District working with Energy Commission staff on this licensing case. If you have any questions regarding our comments, please contact Keith Golden at (916) 653-1643. We look forward to discussing our comments in further detail with you.

Sincerely,

DALE EDWARDS, Manager
Environmental Protection Office

cc: Docket (08-AFC-1)
Proof of Service List
Mike Tollstrup, California Air Resources Board
Gerado Rios, US Environmental Protection Agency, Region IX