CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

DOCKET
08-AFC-10
DATE May 15 2009
RECD. May 15 2009

May 15, 2009

Mr. David Warner
Director of Permit Services
San Joaquin Valley Unified Air Pollution Control District
4800 Enterprise Way
Modesto, CA 95356

Dear Mr. Warner:

Northern California Power Agency, Lodi Energy Center (08-AFC-10)
PRELIMINARY DETERMINATION OF COMPLIANCE, PROJECT NO. N-1083490

Energy Commission staff appreciates the opportunity to provide written public comments on the Preliminary Determination of Compliance (PDOC) issued by the District on April 15, 2009 for the Lodi Energy Center Power Plant proposed by Northern California Power Agency (NCPA).

Energy Commission staff, pursuant to both the Warren-Alquist Act and the California Environmental Quality Act (CEQA), must determine 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 level of insignificance. These determinations may be difficult without additional information from the San Joaquin Valley Air Pollution Control District (SJVAPCD or District) in support of the PDOC.

Rule 2201, New Source Review and BACT

The discussion of Best Available Control Technologies (BACT, on PDOC pp. 26-28) does not include information on minimizing startup emissions or startup durations. The U.S. Environmental Protection Agency (U.S. EPA) requires that BACT apply not only during normal steady-state operations but also during transient operating periods such as startups.[1] Energy Commission staff recommends that the district consider conducting, as part of the BACT analysis, a review of combustion turbine and combined cycle system operational controls or design features that can shorten start up and shutdown events and optimize emission control systems. Energy Commission staff recognizes that the proposed combustion turbine for the Lodi Energy Center would use "Rapid Response" technology, but we suggest that SJVAPCD provide information demonstrating that the BACT analysis has considered startup periods.

- Please describe whether SJVAPCD considered options such as control system modifications allowing injection of ammonia earlier or alternative designs for the heat recovery steam generator (HRSG) that reduce the time needed to heat the HRSG without causing thermal stress.

[1] U.S. EPA letter to Antelope Valley Air Quality Management District. Comments on the PDOC for Palmdale Hybrid Power Project. Dated March 19, 2009.

- Please describe whether SJVAPCD reviewed the startup durations and startup emissions performance of the Palomar Energy Center in Escondido, San Diego County Air Pollution Control District (permit holder: San Diego Gas & Electric), which includes two combined-cycle combustion turbines similar to the one proposed for Lodi. Palomar uses a software system that has been in operation since 2007 with an early ammonia injection system that greatly reduces start-up times and thus emissions.

The SJVAPCD issued a Final Determination of Compliance for the Avenal Power Center on October 30, 2008 (08-AFC-01, Project No. C-1080386). The Avenal project would include two combined-cycle combustion turbines similar to the one proposed for Lodi. The SJVAPCD made a BACT determination for carbon monoxide (CO) to be limited to no more than 2.0 parts per million (ppm) on a 3-hour basis (Attachment F-5 of Avenal FDOC). This BACT determination is missing from the Lodi PDOC because the District proposes to accept limit of 3.0 ppm or less on a 3-hour basis.

- Please discuss why the District finds a CO emission limit of 3.0 ppm acceptable considering the District has recently established a lower 2.0 ppm limit as BACT on a previous, similar project.

Rule 4703, Stationary Gas Turbines

The discussion of compliance with District Rule 4703 (PDOC pp. 73 to 81) appears to be based largely on the information provided to SJVAPCD by NCPA and NCPA's consultant (from a letter to SJVAPCD dated January 14, 2009). In the PDOC (p. 76), the District claims that vendor information indicates startups potentially exceeding the two-hour limit in District Rule 4703, Section 5.3.1.1, but no vendor information on startups was provided to the Energy Commission by NCPA. Similar current projects would meet much more stringent startup limitations than the six hours allowed by the Lodi PDOC, including no more than 110 minutes for the Victorville 2 Hybrid Power Project (07-AFC-1, Final Commission Decision, July 2008, CEC-800-2008-003-CMF) and the Palmdale Hybrid Power Plant (08-AFC-9, currently under review). We suggest that SJVAPCD provide additional information demonstrating that the Lodi Energy Center would be likely to comply with the two hour startup limit in this rule.

- Please attach with the FDOC the information "provided by the turbine and HRSG vendors" (PDOC p. 76) that the SJVAPCD reviewed in its determination that the Lodi Energy Center cannot achieve a startup duration not to exceed two hours, as in District Rule 4703, Section 5.3.1.1.
- Please describe why the proposed Lodi Energy Center with Rapid Response would require more time to startup than the proposed Tracy Combined Cycle Power Plant (08-AFC-07, Project No. N-1083212, currently under review) because the District's PDOC for the Tracy Combined Cycle Power Plant states that: "Startup information provided by the turbine and HRSG vendors indicates that for a cold startup, a maximum of three hours is required . . ." (p. 100 of the Tracy PDOC dated April 2, 2009).
- Please elaborate on why a cold start duration of up to six hours should be allowed for the Lodi Energy Center with Rapid Response (Lodi PDOC p. 76)

cold startup duration would not exceed 110 minutes for the licensed Victorville 2 and proposed Palmdale projects.

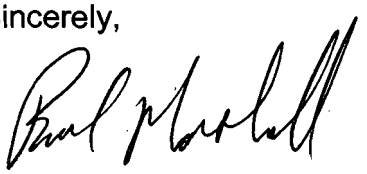
Development of the Interpollutant Ratio

Energy Commission staff appreciates the explanation of the interpollutant offset ratio provided in the PDOC Attachment G. The modeling for the interpollutant ratio is part of the 2008 PM2.5 Plan that was adopted by ARB on May 22, 2008, and the plan was subsequently submitted to U.S. EPA. However, as of late April 2009, there had been no U.S. EPA action on the PM2.5 plan.

- Please describe whether the development of the interpollutant ratio has been reviewed and/or approved by U.S. EPA.

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,



Paul Marshall, Acting Office Manager
Environmental Protection Office
Siting, Transmisssion and Environmental
Protection Division

cc: Docket (08-AFC-10)
Proof of Service List
California Air Resources Board
U.S. Environmental Protection Agency, Region IX