

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

April 30, 2009

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

<b>DOCKET</b>	
<b>08-AFC-7</b>	
DATE	APR 30 2009
RECD.	APR 30 2009

Dear Mr. Warner:

**GWF Tracy Combined Cycle Power Plant (08-AFC-7)  
 PRELIMINARY DETERMINATION OF COMPLIANCE, PROJECT NO. N-1083212**

Energy Commission staff appreciates the opportunity to provide written public comments on the Preliminary Determination of Compliance (PDOC) issued by the San Joaquin Valley Air Pollution Control District (SJVAPCD or District) on April 2, 2009 for the Tracy Combined Cycle Power Plant proposed by GWF Energy LLC.

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 will be difficult without additional information from the District regarding the PDOC.

**Rules 2201 and 2301, New Source Review and Offsets**

The PDOC shows that by proposing to reduce potential emissions of nitrogen oxides (NOx), no offsets would be required for the project-related NOx emissions (PDOC p. 48). However, the project proposes to increase the potential emissions of volatile organic compounds (VOC) and particulate matter (PM10), and SJVAPCD Rule 2201 requires offsets for these pollutants. The PDOC proposes to allow “surplus” NOx offsets to satisfy Rule 2201 offset requirements for VOC and PM10 (p. 49). This raises questions as to whether the NOx offsets [or emission reduction credits (ERCs)] that were surrendered for the original project were consumed by the original permitting action, and if they exist today, how should the NOx ERCs be valued? The SJVAPCD has indicated that the ERCs surrendered to permit the original Tracy Peaker Project (TPP) sources in 2003 are now invalid.<sup>1</sup> For the Final Determination of Compliance:

- Please clarify whether the ERCs surrendered for TPP in 2003 were made invalid by their surrender.
- Please identify which of the ERCs (by certificate numbers) that were originally provided for TPP are currently considered in the PDOC to be “surplus.”

<sup>1</sup> The statement that ERCs become invalid upon surrender is made by the SJVAPCD in its letter to GWF Energy dated April 16, 2003 regarding the Tracy Peaker Power Plant (01-AFC-16).

- Please identify which NOx ERCs (by certificate numbers) would be used to satisfy the project's compliance with Rule 2201 offset requirements for VOC and PM10.
- Please state whether the project's compliance with Rule 2201 offset requirements for VOC and PM10 relies upon NOx ERCs that need to be adjusted to become consistent with applicable air district, state, and/or federal rules and/or planning requirements (per Rule 2301, Section 6.7), including Reasonable Further Progress or requirements for Reasonably Available Control Technology (RACT).
- If the values of the NOx ERCs need adjustment, are there sufficient offsets post-adjustment to satisfy the VOC and PM10 requirements?
- Please state whether the project's compliance with Rule 2201 offset requirements for VOC and PM10 relies upon NOx ERCs that are/were subject to the annual equivalency demonstration in Rule 2201 Section 7, and if so, how the equivalency demonstration affects or has affected those NOx ERCs.

The PDOC (p. 49) states that by reducing the NOx potential-to-emit: "GWF Tracy had the option to re-bank the ERCs that they originally provided," but the PDOC does not explain how "re-banking" could occur under SJVAPCD Rule 2301, Section 4.3. The term "re-bank" does not appear in Rules 2201 or 2301. If Rule 2301, Section 4.3 is being used to bank offsets ". . . pursuant to Section 4.2 . . .," then it is not clear how this project would satisfy Section 4.2, which requires emission reductions to be "real" before they are eligible for banking. The PDOC (pp. 31-32) shows that the TPP pre-project actual emissions of NOx are around 4,000 lb/yr. Thus, the existing TPP has almost no notable actual emissions that may be eligible for banking as real emission reductions. By introducing a strategy to "re-bank" ERCs, the PDOC implies that SJVAPCD awards ERCs for shutting down essentially non-operational sources. For the Final Determination of Compliance:

- Please clarify whether any new ERCs are being created by the proposed project and describe whether any real emission reductions are occurring.

### **Rule 2201, New Source Review and BACT**

The discussion of Best Available Control Technologies (BACT, pp. 40-46) 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.<sup>2</sup> 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 existing Frame 7EA combustion turbines may not be capable of retrofitting to a level of control equivalent to a newer or larger turbine (as in GWF Response to Data

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<sup>2</sup> U.S. EPA letter to Antelope Valley Air Quality Management District. Comments on the PDOC for Palmdale Hybrid Power Project. Dated March 19, 2009.

Request 6, Dated 11/19/2008, submitted to CEC/Docket Unit on 11/19/2008), but we suggest that SJVAPCD provide information demonstrating that the BACT analysis has considered startup periods. Options for consideration by the SJVAPCD could include 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.

### **Development of the Interpollutant Ratio**

Energy Commission staff appreciates the explanation of the interpollutant offset ratio provided in the PDOC Attachment O. The report on Interpollutant Ratio Development does not describe whether the ERCs surrendered in 2003 for the original TPP are included in the emissions inventories of the various modeling analyses.

- Please describe whether the inventories of nitrate emissions in the receptor modeling or the regional modeling include the ERCs associated with this proposed project.

The modeling for the interpollutant ratio is part of the 2008 PM2.5 Plan that was adopted by the California Air Resources Board on May 22, 2008, and the plan was subsequently submitted to U.S. EPA. However, as of April 2009, there has 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.

### **Commissioning Emission Limits**

The information regarding commissioning (PDOC pp. 15 and 23 and Attachment D) appears to be out of date. PDOC Condition 12 for the stationary gas turbines would allow up to 160.5 pounds per hour (lb/hr) NOx during commissioning. However, in Data Response Set 1 (GWF Response to Data Request 4, Dated 11/19/2008, submitted to CEC/Docket Unit on 11/19/2008), GWF informed the Energy Commission that the maximum emission rate during commissioning would be 146.7 lb/hr NOx.

- Please ensure that the commissioning emission limits in Condition 12, and elsewhere, reflect the latest information from GWF.

### **Applicable Rules**

Section II regarding Applicable Rules does not describe the applicability of federal New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60 - Subpart IIII).

- Please provide a brief description of the applicability of these rules to the emergency standby generator and fire water pump engines.

### **Other Comments**

The Process Description (PDOC p. 3) appears to be inconsistent with AFC Section 5.1.4.1.4 and Table 5.1-10, which includes a wet surface air cooler (WSAC) that would emit more than 2 lb/day PM10, over the BACT trigger level shown on PDOC p. 41.

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- Please indicate whether the wet surface air cooler has been considered and identify any applicable requirements or permit conditions.

The PDOC (p. 31) shows the project would be a “Federal Major Modification” for NO<sub>x</sub>, but the meaning of the term “federal” in this context is unclear. The PDOC addresses the applicability of the SJVAPCD NSR program, not the federal Prevention of Significant Deterioration (PSD) program where the term “Federal Major Modification” would seem to apply.

- Please explain what are the implications and applicable requirements triggered by the project being a “Federal Major Modification” for NO<sub>x</sub>.
- Please provide a brief discussion and analysis of the applicability of the federal PSD program.

The PDOC (p. 98) mentions installation of four stationary gas turbines in the discussion of Rule 4703 compliance.

- Please confirm that the discussion of Rule 4703 is accurate, given the project is for two larger combustion turbines, not four.

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,

**Original signed by**  
PAULA DAVID  
Acting Environmental Protection Office Manager

cc: Docket (08-AFC-07)  
Proof of Service List  
California Air Resources Board  
U.S. Environmental Protection Agency, Region IX



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
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1516 NINTH STREET, SACRAMENTO, CA 95814  
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**APPLICATION FOR CERTIFICATION  
FOR THE *GWF TRACY COMBINED CYCLE  
POWER PLANT PROJECT***

**Docket No. 08-AFC-7  
PROOF OF SERVICE**

**(Revised 2/25/2009)**

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**DECLARATION OF SERVICE**

I, April Albright, declare that on April 30, 2009, I served and filed copies of the attached GWF Tracy Combined Cycle Power Plant (08-AFC-7) Preliminary Determination of Compliance, Project No. N-1083212, dated April 30, 2009. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:

**[<http://www.energy.ca.gov/sitingcases/tracyexpansion/index.html>]**. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

***(Check all that Apply)***

**For service to all other parties:**

sent electronically to all email addresses on the Proof of Service list;

by personal delivery or by depositing in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

**AND**

**For filing with the Energy Commission:**

sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);

**OR**

depositing in the mail an original and 12 paper copies, as follows:

**CALIFORNIA ENERGY COMMISSION**

Attn: Docket No. 08-AFC-7  
1516 Ninth Street, MS-4  
Sacramento, CA 95814-5512

[docket@energy.state.ca.us](mailto:docket@energy.state.ca.us)

I declare under penalty of perjury that the foregoing is true and correct.

Original signed by \_\_\_\_\_  
**April Albright**