



**DOCKET**

**08-AFC-7**

DATE APR 22 2009

RECD. APR 24 2009

April 22, 2009

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

**RE: Project #: N-1083212 – Application #'s: N-4597-1-5, '-2-5, '-4-2 '-5-0, and '-6-0**

Dear Mr. Warner:

GWF Energy LLC has completed its review and prepared comments to the Preliminary Determination of Compliance for the GWF Tracy Combined Cycle Power Plant project that has been prepared by the District. We would like to take this opportunity to thank the District for the thorough review and effort on the ATC application. We would especially like to thank James Harader, Air Quality Engineer who worked with GWF in assuring the PDOC was completed in a timely manner and is a document that GWF will support.

We have identified minor editorial edits to the PDOC that should be made prior to the FDOC being produced. Our comments are enclosed. If there are any questions regarding our comments please feel free to contact me directly at 925-431-1440.

Thank you for your time and effort regarding this document.

Respectfully,

A handwritten signature in black ink, appearing to read 'Mark Kehoe', written over a horizontal line.

Mark Kehoe  
Director, Environmental and Safety Programs

Enclosure: Review and Response to PDOC

cc. Alan Solomon, Project Manager – CEC  
James Harader, Air Quality Engineer – SJVAPCD  
Jerry Salamy, Senior Project Manager – CH2MHill  
Michael J. Carroll, Counsel – Latham & Watkins, LLP  
Doug Wheeler, Vice President – GWF Energy LLC

# Review and Response to Preliminary Determination of Compliance

## GWF Tracy Combined-Cycle Power Plant California Energy Commission Application for Certification Docket #: 08-AFC-07

**Reviewed By:** GWF Energy LLC  
4300 Railroad Avenue  
Pittsburg, CA 94565  
(925) 431-1440  
Attention: Mark Kehoe, Director Environmental and Safety Programs

The following are proposed changes to the document issued by the San Joaquin Valley Air Pollution Control District. Changes will be presented in ***Bold Italic***.

### IV. Process Description

Pg 4. Heat Recovery Steam Generators (HRSGs): Insert - ***High-pressure evaporator*** as a bullet point.

Pg 5. Existing Diesel-Fired Emergency IC Engine Powering an Electrical Generator: Modify the sentence - Supplementary to the DC battery system, ***an existing*** diesel-fueled emergency generator system will provide long-term power for a safe...

### V. Equipment List

Pg 8. Post-Project Equipment Descriptions: Modify the description - N-4597-5-0: 85 MMBTU/HR NATURAL GAS-FIRED RENTECH MODEL RTD-2-60 BOILER WITH A ***COEN*** C-RMB BURNER AND FLUE GAS RECIRCULATION OR EQUIVALENT.

### VI. EMISSION CONTROL TECHNOLOGY EVALUATION

Pg 10. N-4597-1-5 and N-4597-2-5: Combustion Turbine Generators: Change the sulfur content value - Reductions in particulate matter are achieved by limiting the quantity of sulfur in the fuel and the ammonia slip. The applicant has proposed the use of natural gas fuel with a maximum sulfur content of ***0.66*** grains/scf and has proposed to limit ammonia slip emissions to 5 ppmvd NH<sub>3</sub> @ 15% O<sub>2</sub>.

### VII. GENERAL CALCULATIONS

Pg 13. A. Assumptions: N-4597-1-5 and N-4597-2-5: Combustion Turbine Generators: Bullets 3, 4 & 5 – delete the following - Maximum daily emissions for each CTG for NO<sub>x</sub> and CO are estimated assuming a worst-case scenario consisting of one cold start startup (3 hr), one hot startup (1 hr), two shutdowns (1.3 hr), and 18.7 hours of steady state operation at 15 degrees F ambient temperature ~~***with the evaporative coolers operating***~~ and duct burners firing.

Pg 18. B. Emission Factors: Post-Project Turbine Startup and Shutdown Emission Factors: Table - **Proposed Worst Case Hourly Emissions During Shutdown, Per Turbine** – Correct SOx and PM10 values

NOx (lb/hr)	106.00
CO (lb/hr)	149.00
VOC (lb/hr)	3.15
SOx (lb/hr)	<b>1.23</b>
PM10 (lb/hr)	<b>3.77</b>

Pg. 35 N-4597-5-0: Auxiliary Boiler – Proposed 1080 Conditions: Delete all bullets and insert the Condition 11 of N-4595-5-0.

***The exhaust stack shall either be equipped with a continuous emissions monitor (CEM) for NO<sub>x</sub>, CO, and O<sub>2</sub> or the permittee shall implement one of the alternate monitoring schemes (A, B, C, D, E, F, or G) listed in District Rule 4320, Section 5.7.1 (dated 10/16/08). Permittee shall submit, in writing, the chosen method of monitoring (either CEMS or chosen alternate monitoring scheme) at least 30 days prior to initial operation of this boiler. [District Rules 2201, 4305, 4306 and 4320]***

Pg. 38 Rule 1081 Source Sampling: Bullet #10 Addition of Approved Methods – The following test methods shall be used: NOx - EPA Method 7E, **or 20** or ARB Method 100 **and EPA Method 19 (Acid Rain Prog)**; CO - EPA Method 10 or 10B **or ARB Method 100**; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 **and 202** (front half and back half) or 201a and 202; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 **or ARB Method 100**. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.4400(1)(i)]

## VIII. COMPLIANCE

Pg 48. B. Offsets: 1. Offset Applicability: Insert VOC - As seen in the table below, the facility's SSPE2 is greater than the offset thresholds for NO<sub>x</sub>, **VOC**, and PM<sub>10</sub> emissions.

Pg 49. 2. Quantity of Offsets Required: Third Sentence: Delete 00 - The applicant has proposed that any ~~NOx~~ emissions surplus of SSPE2 be allocated towards meeting their VOC and PM10 offset requirements.

Pg. 52. C. Public Notification: D. Daily Emission Limits: Correct SOx value - Emission rates from this CTG without the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) – 8.10 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; CO – 3.90 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; VOC (as methane) – 1.13 lb/hr and 1.5 ppmvd @ 15% O<sub>2</sub>; PM<sub>10</sub> – 4.40 lb/hr; or SO<sub>x</sub> (as SO<sub>2</sub>) – **2.03** lb/hr. NO<sub>x</sub> (as NO<sub>2</sub>) emission rates and concentration limits are based on one hour rolling averages. All other emission

rates and concentrations are based on three hour rolling averages. [District Rules 2201 and 4703 and 40 CFR 60.4320(a) & (b)]

Pg. 70 H. Compliance Assurance: 40 CFR 60 – Subpart KKKK: Standards for Nitrogen Oxides: Correct SO<sub>x</sub> value - Emission rates from this CTG without the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) – 8.10 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; CO – 3.90 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; VOC (as methane) – 1.13 lb/hr and 1.5 ppmvd @ 15% O<sub>2</sub>; PM<sub>10</sub> – 4.40 lb/hr; or SO<sub>x</sub> (as SO<sub>2</sub>) – **2.03** lb/hr. NO<sub>x</sub> (as NO<sub>2</sub>) emission rates and concentration limits are based on one hour rolling averages. All other emission rates and concentrations are based on three hour rolling averages. [District Rules 2201 and 4703 and 40 CFR 60.4320(a) & (b)]

Pg. 74 H. Compliance Assurance: 40 CFR 60 – Subpart KKKK: CEMS Data and Excess NO<sub>x</sub> Emissions: add text - (c) Correction of measured NO<sub>x</sub> concentrations to 15 percent O<sub>2</sub> is not allowed **except for determination of compliance with Section 60.4350.**

Pg. 83 Rule 4201 Particulate Matter Concentration: N-4597-1-5 and N-4597-2-5: Combustion Turbine Generators: Correct the following values –  
Max PM<sub>10</sub> emission rate = **5.8** lb/hr.; PM Conc. (gr/scf)=[**(5.8** lb/hr)

Pg. 90 Section 5.8, Compliance Determination: Add the following text - ~~(2980)~~  
For emissions source testing, the arithmetic average of three 30-consecutive-minute (**or longer periods as necessary**) test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320]

Pg. 92 Section 6.2, Test Methods: Add the following text –

The following permit conditions will be listed on the permit as follows:

- ~~(109)~~ Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
- NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E, **20** or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] **Correct in Table as well**
- CO emissions for source test purposes shall be determined using EPA Method 10, **10B** or ARB Method 100. [District Rules 4305, 4306, and 4320] **Correct in Table as well**

- **Add VOC test method requirements**
- **Add PM<sub>10</sub> test method requirements**
- Stack Gas Velocities (in Table) – EPA Method 2 **or 19**

Pg. 92-93 Section 6.3, Compliance Testing: Delete the following document references - ~~{3467}~~; ~~{3466}~~; ~~{110}~~

Pg. 96-97 N-4597-6-0: Fire-Pump Engine: Delete the document references in the section, ex. ~~{3816}~~

Pg. 98 Section 5.1 – NO<sub>x</sub> Emission Requirements: Correct the following values –

- Emission rates from this CTG without the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) – 8.10 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; CO – 3.90 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; VOC (as methane) – 1.13 lb/hr and 1.5 ppmvd @ 15% O<sub>2</sub>; PM<sub>10</sub> – **4.40** lb/hr; or SO<sub>x</sub> (as SO<sub>2</sub>) – 2.03 lb/hr. NO<sub>x</sub> (as NO<sub>2</sub>) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages. [District Rules 2201 and 4703 and 40 CFR 60.4320(a) & (b)]
- Emission rates from this CTG with the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) – 10.30 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; CO – 6.00 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; VOC (as methane) – 3.22 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; PM<sub>10</sub> – **5.80** lb/hr; or SO<sub>x</sub> (as SO<sub>2</sub>) – **2.63** lb/hr. NO<sub>x</sub> (as NO<sub>2</sub>) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages. [District Rules 2201 and 4703 and 40 CFR 60.4320(a) & (b)]

Pg. 99 Section 5.2 – CO Emission Requirements: Correct value of **PM<sub>10</sub>** and **SO<sub>x</sub> similar to Section 5.1** on page 98.

Pg. 106 Sections 6.3 and 6.4 - Compliance Testing: Correct test methods – The following test methods shall be used: NO<sub>x</sub> - EPA Method 7E, **or 20** or ARB Method 100 **and EPA Method 19 (Acid Rain Prog)**; CO - EPA Method 10 or 10B **or ARB Method 100**; VOC - EPA Method 18 or 25; PM<sub>10</sub> - EPA Method 5 **and 202** (front half and back half) or 201a and 202; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or 20 **or ARB Method 100**. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.4400(1)(i)]

Pg. 119 X. BILLING INFORMATION: **Correct miscalculation of annual fees.**

#### N-4597-1-5

General question – the Conditions make two references that could be a conflict. There is a reference to **Owner or Operator** and the second reference is to **permittee**. It would be prudent to identify one responsible party by title throughout the permit conditions.

Example: The **permittee** shall not begin actual onsite construction of the equipment authorized by this Authority to Construct... The **owner/operator** of GWF Tracy shall minimize the emissions...

**10.** Coincident with the steady state operation of the SCR system and the oxidation catalyst at loads greater than 50% and after installation and tuning of emission controls, NO<sub>x</sub>, CO, and VOC emissions from this unit shall comply with the limits specified in conditions **#28** and **#29** of this permit. [District Rule 2201]

**13.** During the initial commissioning activities, the permittee shall demonstrate compliance with the NO<sub>x</sub> emission limit specified in condition **#12** through the use of properly operated and maintained continuous emission monitor located within the inlet section of the steam generator unit. Upon completion of the initial commission activities and with the installation of the SCR system and oxidation catalyst, the permittee shall demonstrate compliance with the NO<sub>x</sub> and CO emission limits specified in conditions **#28, 29, 30 and 31** through the use of properly operated and maintained continuous emission monitors and recorders as specified in conditions **#52** and **#53**. The monitored parameters for this unit shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation). [District Rule 2201]

**20.** Emission rates from this CTG without the duct burner firing, except during startup and shutdown periods, shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) – 8.10 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; CO – 3.90 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>; VOC (as methane) – 1.13 lb/hr and 1.5 ppmvd @ 15% O<sub>2</sub>; PM<sub>10</sub> – 4.40 lb/hr; or SO<sub>x</sub> (as SO<sub>2</sub>) – **2.03** lb/hr. NO<sub>x</sub> (as NO<sub>2</sub>) emission rates are one hour rolling averages. All other emission rates are three hour rolling averages. [District Rules 2201 and 4703 and 40 CFR 60.4320(a) & (b)]

**32.** A start up event is defined as the period beginning with the gas turbine initial firing until the unit meets the lb/hr and ppmvd emission limits in Condition **28** or Condition **29** depending on the operating conditions of the duct burners during the start up event. A shutdown event is defined as the period beginning with the turbine shutdown sequence and ending with the cessation of firing the gas turbine engine. [District Rules 2201 and 4703]

**48.** The following test methods shall be used: NO<sub>x</sub> - EPA Method 7E, or **20 or ARB Method 100 and EPA Method 19 (Acid Rain Prog)**; CO - EPA Method 10 or 10B **or ARB Method 100**; VOC - EPA Method 18 or 25; PM<sub>10</sub> - EPA Method 5 **and 202 (front half and back half)** or 201a and 202; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or **20 or ARB Method 100**. EPA approved alternative test methods as

approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.4400(1)(i)]

**N-4597-2-6:** Edits and comments made on permit N-4597-1-6 are to be addressed in permit N-4597-2-6 as well.

**N-4597-4-2:**

**9.** Emissions from this IC engine shall not exceed any of the following limits: 4.69 g-NO<sub>x</sub>/bhp-hr, 0.12 g-CO/bhp-hr, or 0.04 g-VOC/bhp-hr. ***Emissions from this IC engine shall not exceed 0.029 g-PM<sub>10</sub>/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]***

**10. *Delete Condition 10, redundant with Condition 9.***

**11. *Delete Condition 11, redundant with Condition 9.***

**29.** If monitoring NO<sub>x</sub>, CO, and O<sub>2</sub> with a CEM, the CEM shall meet the requirements of 40 CFR parts 60 and/or 75 and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 2201 and 1080]

**36.** If monitoring NO<sub>x</sub>, CO, and O<sub>2</sub> with a CEM, the owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F, 5.11 ***or by other methods deemed equivalent by mutual agreement with the District, Cal-ARB and USEPA,*** at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080]

**GWF TRACY COMBINED CYCLE POWER PLANT PROJECT**  
**AIR QUALITY MITIGATION SETTLEMENT AGREEMENT**

This Air Quality Mitigation Settlement Agreement (“Agreement”) is entered into this 19<sup>th</sup> day of March, 2009 by and between GWF Energy LLC (“GWF”), and the San Joaquin Valley Unified Air Pollution Control District (the “District”). GWF and the District may be referred to individually as a “Party” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, on July 18, 2008, GWF filed an Application for Certification (“AFC”) with the California Energy Commission (“CEC”) for the GWF Tracy Combined Cycle Power Plant, to convert the existing Tracy Peaker Plant, a nominal 169 megawatt simple cycle electrical generating facility, to a nominal 314 megawatt combined cycle generating facility (the “Project”). GWF is seeking approval from the CEC to construct and operate the Project; and

**WHEREAS**, on July 21, 2008, GWF filed an application for Determination of Compliance (DOC) with the District for the Project. The application requests that the District determine compliance with District regulations and to forward that determination to the CEC for their use in the certification process.

**WHEREAS**, the Project site will occupy a 16.38-acre, fenced site within the existing GWF-owned 40-acre parcel in an unincorporated portion of San Joaquin County immediately southwest of the City of Tracy; and

**WHEREAS**, the District has determined that the Project, as proposed, complies with all applicable District requirements, including all requirements related to emission offsets; and

**WHEREAS**, notwithstanding that the Project complies with all applicable District requirements, the District is concerned about the increase in actual emissions the Project will have as compared to the actual emissions from the peaking plant configuration and the effect of this increase on the ability of the District to meet its air quality attainment goals; and

**WHEREAS**, GWF believes that any and all air quality impacts from the Project will be fully mitigated through offsets that were provided for the Tracy Peaker Plant and by the reduction in potential NOx emissions that will result from the Project; and

**WHEREAS**, GWF desires to cooperate with the District to address the District’s air quality concerns by entering into this Agreement to provide additional air quality benefits, despite being under no legal obligation to do so; and

**WHEREAS**, the District and GWF have determined that payment of an air quality mitigation fee to be used for air quality benefit programs within the San Joaquin Valley, and particularly in the Northern Region within or near the City of Tracy, is the appropriate method for GWF to address District concerns and to ensure additional localized benefits within the District.



**NOW THEREFORE**, for good and valuable consideration, including the mutual covenants set forth herein, GWF and the District hereby agree as follows:

1. Air Quality Mitigation Fee. Subject to the conditions precedent set forth in Section 2 below, GWF agrees to contribute to the District the sum of three hundred nineteen thousand dollars (\$319,000.00) to ensure localized benefits in the Northern Region, particularly within or near the City of Tracy (the "Air Quality Mitigation Fee"). An outline of the methodology used to determine the Air Quality Mitigation Fee is attached hereto as Exhibit A-1, and is incorporated herein by reference. The calculation of the Air Quality Mitigation Fee is attached hereto as Exhibit A-2, and is incorporated herein by reference. GWF agrees to pay the Air Quality Mitigation Fee to the District within thirty (30) days after the start of the actual physical modification of the Project. If GWF ceases to be the owner of the Project and a new owner of the Project has made the payment contemplated in this Agreement to the District, then GWF shall be relieved of any further obligations under this Agreement.

2. Conditions Precedent. The Parties acknowledge and agree that GWF's obligation to pay the Air Quality Mitigation Fee shall be subject to the fulfillment or waiver (such waiver to be in GWF's sole discretion) of both the following conditions precedent:

- (a) Issuance of the final CEC permit for the Project; and
- (b) Start of the actual physical modification of the Project.

Notwithstanding the above, if the AFC with the CEC has been cancelled or withdrawn, then this Agreement shall automatically terminate, and neither Party shall have any further obligations hereunder.

3. Use of Air Quality Mitigation Fee. The District agrees to set up a specific account into which the Air Quality Mitigation Fee will be deposited. The District agrees to use the Air Quality Mitigation Fee exclusively to establish specific programs that create real time air quality benefits within the District; the final mitigation measures to be implemented will be selected by District from the candidate measures including Heavy Duty Engine Retrofit/Replacement and Agricultural Engine Replacement and other measures set forth in any Air Quality Mitigation Measures Plan as approved by the California Energy Commission upon licensing of the GWF Tracy Combined Cycle Power Plant, based on the cost-effectiveness of the measures as determined by the District; the District shall give preference to cost-effective programs in or near the City of Tracy, San Joaquin County, and the Northern Region of the San Joaquin Valley Air Basin, in that order.

The District agrees not to place the Air Quality Mitigation Fee into any operating account, or to use the Air Quality Mitigation Fee for any purpose other than those designated in this Agreement.

4. Only Mitigation Payment Required. The District acknowledges and agrees that payment of the Air Quality Mitigation Fee pursuant to this Agreement is the appropriate method

for GWF to address the District's concerns relating to the increase in actual emissions from the Project and to ensure localized benefits in the Northern Region, and that, other than necessary compliance with applicable District, state, and federal regulations, payment of such Air Quality Mitigation Fee is the only action requested by the District in connection with the development, construction, operation and maintenance of the Project. Nothing in this Agreement shall be deemed a waiver of any cause of action or remedies the District may pursue against other entities related to increases in emissions within the San Joaquin Valley. Further, the District acknowledges and agrees that GWF believes that any and all air quality impacts from the Project will be fully mitigated by its original emission reduction credit offset package and subsequent surrender of the offsets that are no longer needed by the Project and that nothing in this Agreement can or should be interpreted as an admission by GWF to the contrary.

5. Cooperation. The Parties agree to cooperate with each other with respect to any requests or actions related to this Agreement from the CEC, the Environmental Protection Agency, the California Air Resources Board, and/or any interveners in the Project, and to do or cause all things necessary, proper or advisable to help consummate and make effective the transaction contemplated by this Agreement. The Parties agree to seek a condition of certification in the CEC license for the Project which incorporates the terms of this Agreement.

6. Governing Law. This Agreement shall be governed by, construed under and enforced in accordance with the laws of the State of California.

7. Authority. Each Party acknowledges and agrees that it has the full right, power and authority to execute this Agreement, and to perform its obligations hereunder.

8. Relationship of the Parties. Nothing herein is intended to create or is to be construed as creating a joint venture, partnership, agency or other taxable entity between the Parties. The rights and obligations of the Parties shall be independent of one another and shall be limited to those expressly set forth herein and, except as expressly provided to the contrary, shall not be construed to apply to any affiliate of the Parties.

9. No Third Party Beneficiary. The Parties mutually agree that this Agreement is for their sole benefit and is not intended by them to be, in part or in whole, for the benefit of any third party.

10. Notices. All notices necessary to be given under the terms of this Agreement, except as herein otherwise provided, shall be in writing and shall be communicated by prepaid mail, telegram or facsimile transmission addressed to the respective Parties at the address below or to such other address as respectively designated hereafter in writing from time to time:

To GWF: GWF Tracy Combined Cycle Power Plant  
c/o GWF Energy LLC  
4300 Railroad Avenue  
Pittsburg, CA 94565  
Attn: Mr. Doug Wheeler, Vice President  
Phone: (925) 431-1443  
Fax: (925) 431-0518

To District: 1990 East Gettysburg Avenue  
Fresno, CA 93726-0244  
Attn: Mr. David Warner  
Phone: (559) 230-5900  
Fax: (559) 230-6061

11. Assignment. This Agreement shall be binding upon, and inure to the benefit of, each of the Parties and their respective successors and permitted assigns. No Party shall assign this Agreement or its rights or interests hereunder without the prior written consent of the other Party, such consent not to be unreasonably withheld or delayed. Notwithstanding the above, the Parties agree that GWF may freely assign its rights and duties under this Agreement, without District's prior written consent, to: (a) an affiliate of GWF; (b) a successor-in-interest by merger, consolidation or reorganization; (c) a purchaser or other transferee of the Project; (d) a lender for purposes of financing the project; or (e) to the California Department of Water Resources (DWR); provided, however, that the DWR shall agree to be bound by all of the terms and conditions of this Agreement..

12. Entire Agreement. This Agreement, together with the Exhibits attached hereto, contains the entire understanding between the Parties with respect to the subject matter herein. This Agreement may not be amended except by an instrument in writing signed by each Party.


13. Joint Effort. The Parties acknowledge and agree that each Party and its counsel have read this Agreement in its entirety, fully understand it, and accept its terms and conditions. Accordingly, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party is not applicable and therefore shall not be employed in the interpretation of this Agreement or any amendment of it.

14. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same agreement.

\* \* \*


IN WITNESS WHEREOF, the Parties hereto have executed this Agreement the day and date first above written.

**GWF Tracy Combined Cycle Power Plant**

By:   
Name: Doug Wheeler  
Title: Vice-President

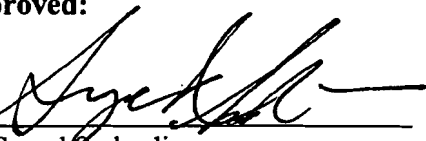
Dated: March 9, 2009

**SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT**

By:   
Chris Vierra, Chair  
Governing Board  
San Joaquin Valley Unified APCD

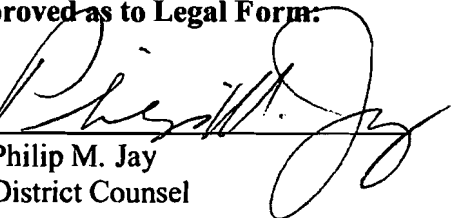
Dated: March 19, 2009

**Approved:**

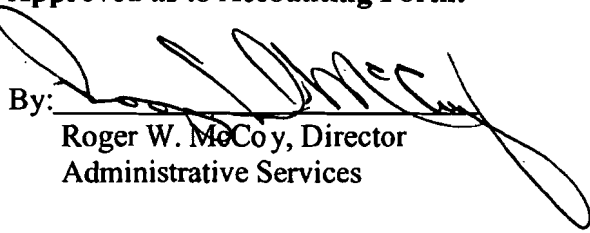
By:   
Seyed Sadredin  
Executive Officer/Air Pollution Control Officer  
San Joaquin Valley Unified Air Pollution Control District

Dated: March 10, 2009

**Approved as to Legal Form:**

By:   
Philip M. Jay  
District Counsel

**Approved as to Accounting Form:**

By:   
Roger W. McCoy, Director  
Administrative Services

## **EXHIBIT A-1**

### **Outline of Methodology for Determining SJV Net Mitigation Value**

The net mitigation value was determined from estimating the project's actual emissions and subtracting the Tracy Peaker Plant's baseline emissions, the reductions from the Tracy Peaker Plant's air quality benefits program, and the benefit from the amount of excess NOx offsets that were provided for the Tracy Peaker Plant but will no longer be needed for this project, which GWF will be surrendering to the District.

In determining the benefit of the excess NOx offsets, other power plant mitigation agreements with the District were reviewed to find the benefit given to reductions that occurred outside of the District boundaries. The lowest credit given to reductions that occurred on the District side of the Altamont Pass was 66.2%. This value was chosen here to be not only conservative, but also consistent with the other power plant mitigation agreements.

The net mitigation value is then multiplied by the average reported cost of purchasing NOx offsets in the District in 2008.

## Exhibit A-2

### Air Quality Mitigation Fee Calculation

	<u>NOx</u>	
Non Duct-Fired Emissions, lb	41771	
Duct-Fired Emissions, lb	11386	
Startup Emissions, lb	9645	
Shutdown Emissions, lb	16093	
<b>Total Projected Actual Emissions</b>	<b>78894</b>	
Actual Baseline Emissions	3423	
Tracy	4,483	
Original Mitigation Package (see note below)	58,558	66.2%
<b>Net Mitigation Balance, lb</b>	<b>12430</b>	
Mitigation Fee, \$/ton	\$ 51,373	
<b>GRAND TOTAL</b>	<b>\$ 319,292</b>	

### Model Inputs

Cold Starts	16
Warm Starts	0
Hot Starts	193
Shutdowns	200
Adjusted Equiv Baseload Hours	2861
Adjusted Equiv Duct-Fired Hours	593

Tracy - Estimated GWF OPs Model				
	<u>base load</u>	<u>duct fired hours</u>	<u>hot starts</u>	<u>cold starts</u>
<b>Jan</b>	<b>213</b>	<b>16</b>	<b>11</b>	<b>2</b>
<b>Feb</b>	<b>187</b>	<b>0</b>	<b>10</b>	<b>1</b>
<b>Mar</b>	<b>106</b>	<b>11</b>	<b>6</b>	<b>1</b>
<b>Apr</b>	<b>210</b>	<b>11</b>	<b>10</b>	<b>2</b>
<b>May</b>	<b>214</b>	<b>21</b>	<b>13</b>	<b>2</b>
<b>Jun</b>	<b>202</b>	<b>91</b>	<b>17</b>	<b>2</b>
<b>Jul</b>	<b>248</b>	<b>187</b>	<b>25</b>	<b>0</b>
<b>Aug</b>	<b>278</b>	<b>149</b>	<b>27</b>	<b>0</b>
<b>Sep</b>	<b>326</b>	<b>53</b>	<b>22</b>	<b>1</b>
<b>Oct</b>	<b>330</b>	<b>27</b>	<b>21</b>	<b>1</b>
<b>Nov</b>	<b>256</b>	<b>0</b>	<b>13</b>	<b>3</b>
<b>Dec</b>	<b>291</b>	<b>27</b>	<b>18</b>	<b>1</b>
	<b>2861</b>	<b>593</b>	<b>193</b>	<b>16</b>

Note: 55,558 = 66.2% of excess original offsets, 88,456.

### Tracy Peaker - 2003-2004 Environmental Benefits

		NOx Reduc - lbs/yr	NOx Reduc 10 yr life	PM Reduc
Lawn Mower Replacement Program	575 electric mowers		36	NA
Offroad HD Equip Diesel Particulate	2 frontend loaders	2774	27,740 lbs	911 lbs/yr
Particulate Reduction	31 school buses	1160		NA
CNV Vehicle Replacements	3 - 84 pass bus	487	4740 lbs	NA
	1 - 1/2 ton Pickup	13		NA
	1/ 3/4 ton Van	13		NA
		<b>4483</b>		



**San Joaquin Valley**  
**AIR POLLUTION CONTROL DISTRICT**

March 25, 2009

Mr. Doug Wheeler, Vice President  
GWF Tracy Combined Cycle Poser Plant  
c/o GWF Energy LLC  
4300 Railroad Avenue  
Pittsburg, CA 94565

**RE: GWF TRACY COMBINED CYCLE POWER PLANT PROJECT AIR  
QUALITY MITIGATION SETTLEMENT AGREEMENT**

Dear Mr. Wheeler:

Enclosed please find one copy of the above referenced agreement that was signed by the Chair of the SJVAPCD Governing Board. If you need additional information, please do not hesitate to contact me at (559)230-6038 or via email at [angie.desantiago@valleyair.org](mailto:angie.desantiago@valleyair.org).

Sincerely,

A handwritten signature in cursive script that reads "Angelina DeSantiago".

Angelina DeSantiago  
Clerk to the Board  
San Joaquin Valley Air Pollution Control District

Enclosure (1)



# San Joaquin Valley

## AIR POLLUTION CONTROL DISTRICT

### GOVERNING BOARD

**Chris Vierra, Chair**  
Councilmember, City of Ceres

**Tony Barba, Vice Chair**  
Supervisor, Kings County

**Judith G. Case**  
Supervisor, Fresno County

**Ronn Dominici**  
Supervisor, Madera County

**Henry Jay Forman, Ph.D.**  
Appointed by Governor

**Michael G. Nelson**  
Supervisor, Merced County

**William O'Brien**  
Supervisor, Stanislaus County

**Leroy Ornellas**  
Supervisor, San Joaquin County

**John G. Telles, M.D.**  
Appointed by Governor

**Ronald A. Watson**  
Supervisor, Kern County

**J. Steven Worthley**  
Supervisor, Tulare County

**Vacant**  
Large City

**Vacant**  
Large City

**Vacant**  
Small City, Central Region

**Vacant**  
Small City, Southern Region

**Sayed Sadredin**  
Executive Director  
Air Pollution Control Officer

Northern Region Office  
4800 Enterprise Way  
Modesto, CA 95356-8718  
(209) 557-6400 • FAX (209) 557-6475

Central Region Office  
1990 East Gettysburg Avenue  
Fresno, CA 93726-0244  
(559) 230-6000 • FAX (559) 230-6061

Southern Region Office  
34948 Flyover Court  
Bakersfield, CA 93308-9725  
(661) 392-5500 • FAX (661) 392-5585

[www.valleyair.org](http://www.valleyair.org)

DATE: March 19, 2009

TO: SJVUAPCD Governing Board

FROM: Sayed Sadredin, Executive Director/APCO  
Project Coordinator: David Warner

RE: APPROVE AND AUTHORIZE CHAIR TO SIGN AIR  
QUALITY MITIGATION AGREEMENT WITH GWF  
ENERGY LLC

### RECOMMENDATION:

1. Authorize the Chair to sign the attached air quality mitigation agreement with GWF Energy LLC (GWF) to accept funds in the amount of three hundred nineteen thousand dollars (\$319,000.00) to mitigate actual emissions increases associated with the operation of GWF's proposed combined cycle power plant in Tracy.

### BACKGROUND:

GWF currently owns and operates an existing 169 megawatt (MW) peaker power plant immediately southwest of Tracy, California. Peaker power plants are typically operated only during periods of peak power consumption, essentially remaining on call until the California Independent Operators (ISO) calls on them to operate to fill an anticipated power need.

GWF has now filed applications with the District and the California Energy Commission (CEC) seeking approval to modify the existing facility to add an additional 145 MW in electrical generation capacity, via the addition of a heat-recovery and steam turbine section, and to operate in a base-load condition, with the capacity to operate on a full-time basis. To accomplish this significant increase in electrical output without a corresponding increase in permitted emissions, GWF is proposing to install better air pollution control equipment in the form of more efficient selective catalytic reduction and catalytic oxidation systems.



As a result of the installation of these emissions control systems, permitted emissions of nitrogen oxides will decline significantly, from 150 tons per year to 90 tons per year. However, the District is concerned that while the permitted emissions are decreasing significantly, actual emissions will increase because the modified plant is expected to operate significantly more hours per year.

GWF has been very receptive to the District's concerns and has exhibited a willingness to address those concerns as well as those of Valley residents potentially impacted by the project. Towards that end, GWF and District staff have negotiated the attached Air Quality Mitigation Agreement that will provide funding for mitigating localized impacts of the project.

### **DISCUSSION:**

The District has determined that GWF's proposal to modify their existing simple cycle peaking power plant into a combined cycle base-load power plant complies with all District regulations, including requirements for Best Available Control Technology and emissions offsets. The permitted emissions from the modified plant have been completely offset by emission reduction credits (ERCs) surrendered as a part of the prior peaking plant project. In fact, because the proposed plant will be permitted to emit less NOx than the existing power plant, NOx ERCs in excess of those required by the new plant were required for the old plant. All NOx ERCs that are in excess of the quantity needed for the original project are being surrendered to the District, and they will be permanently retired.

In addition, GWF had provided significant funding to an air quality benefits program administered by the City of Tracy as a part of the earlier peaker plant approval process. This funding contributed to the purchase of 575 electric mowers, two front end loaders with reduced diesel particulate emissions, 31 cleaner school buses, and several compressed natural gas vehicles.

However, because the peaker plant has operated only a few hours per year, and the combined cycle plant is expected to operate on a full-time basis, the District expressed concern to GWF that the resulting increase in actual emissions may have an impact on the District's attainment efforts. In response to those concerns, GWF has offered to provide additional mitigation, above that required by the District's rules and regulations, and above that supplied by GWF's earlier air quality benefits program associated with the construction of the Tracy peaker plant.

The net mitigation value for this current mitigation agreement was determined by estimating the proposed project's actual emissions and subtracting the following: the Tracy Peaker Plant's baseline actual emissions; the reductions from the Tracy Peaker Plant's air quality benefits program; and the benefit from the amount of excess NOx

offsets that were provided for the Tracy Peaker Plant, but will no longer be needed for this project, which ERCs GWF will be surrendering to the District.

In determining the benefit of the excess NOx offsets, other power plant mitigation agreements with the District were reviewed. The lowest credit given to reductions that occurred on the District side of the Altamont Pass was 66.2%. Rather than providing 100% credit for the excess ERCs being surrendered, GWF and the District agreed to use the 66.2% value as it provides a degree of conservativeness towards the protection of air quality in the San Joaquin Valley and is also consistent with other power plant mitigation agreements.

The net mitigation value is then multiplied by the average reported cost of purchasing NOx offsets in the District in 2008, \$51,373 per ton of NOx. The total mitigation fee is \$319,000.

Similar to the past emission reduction incentive programs sponsored by the District, the funds received under this Air Quality Mitigation Agreement will be used to provide contemporaneous emission reductions in the Valley and to the extent possible near Tracy, within the District's Northern Region. Emission reduction programs that will be funded will be the most cost-effective projects available and are likely to include replacement or retrofitting of heavy duty diesel internal combustion engines and electrification of agricultural pump engines.

### **FISCAL IMPACT**

Under the terms of the Air Quality Mitigation Agreement, GWF Energy, LLC will pay \$319,000 to the District within thirty (30) days after the start of the actual physical modification of the facility to implement this project. To ensure contemporaneous reductions in emissions, the District intends to award these funds expeditiously in accordance with a schedule that would allow emission reductions to take place prior to, or roughly contemporaneous with, the initial start-up of the proposed power plant. It is estimated that necessary budget resolutions authorizing the related appropriations will be presented to the Governing Board sometime in late 2009.

*Attachment:*

*GWF Tracy Combined Cycle Power Plant Project Air Quality Mitigation Settlement Agreement  
(7 pages)*



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
COMMISSION OF THE STATE OF CALIFORNIA  
1516 NINTH STREET, SACRAMENTO, CA 95814  
1-800-822-6228 – [WWW.ENERGY.CA.GOV](http://WWW.ENERGY.CA.GOV)

**APPLICATION FOR CERTIFICATION  
FOR THE *GWF TRACY COMBINED CYCLE  
POWER PLANT PROJECT***

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

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

**APPLICANT**

Doug Wheeler, Vice President  
GWF Energy, LLC  
4300 Railroad Avenue  
Pittsburg, CA 94565  
[dwheeler@gwfpower.com](mailto:dwheeler@gwfpower.com)

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**APPLICANT'S CONSULTANTS**

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**ENERGY COMMISSION**

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Elena Miller  
Public Adviser's Office  
[publicadviser@energy.state.ca.us](mailto:publicadviser@energy.state.ca.us)

**INTERVENORS**

\*indicates change

**DECLARATION OF SERVICE**

I, Mary Finn, declare that on April 24, 2009, I served and filed copies of the attached Preliminary Determination of Compliance (PDOC) dated April 22, 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.



Mary Finn