

APPENDIX 5.1D

# SJVAPCD Authority to Construct Forms

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# San Joaquin Valley Air Pollution Control District

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

## Permit Application For:

- AUTHORITY TO CONSTRUCT (ATC) - New Emission Unit
- AUTHORITY TO CONSTRUCT (ATC) - Modification Of Emission Unit With Valid PTO/Valid ATC
- AUTHORITY TO CONSTRUCT (ATC) - Renewal of Valid Authority to Construct
- PERMIT TO OPERATE (PTO) - Existing Emission Unit Now Requiring a Permit to Operate

1. PERMIT TO BE ISSUED TO: <b>GWF Energy LLC – GWF Tracy Combined Cycle Power Plant</b>	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>4300 Railroad Avenue</u> CITY: <u>Pittsburg</u> STATE: <u>CA</u> ZIP CODE: <u>94565-6006</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>14950 W. Schulte Rd.</u> CITY: <u>Tracy</u> <u>SW</u> /4 SECTION <u>36</u> TOWNSHIP <u>2 south</u> RANGE <u>4 east</u>	WITHIN 1,000 FT OF A SCHOOL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO S.I.C. CODE(S) OF FACILITY (If known): <u>4911</u>
4. GENERAL NATURE OF BUSINESS: <b>Electricity Generation</b>	INSTALL DATE: <b>August 2011</b>
5. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC (If yes, please complete and attach a Compliance Certification form (TVFORM-009)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
6. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) <b>Conversion of the existing simple cycle GE PG7121EA turbine to a combined cycle turbine with duct burner – see Section 2, Section 5.1, and Section 5.9 of the GWF Tracy Application for Certification (AFC) for project description and assessment of air quality impacts.</b>	
7. PERMIT REVIEW PERIOD: Do you request a three- or ten-day period to review the draft Authority to Construct permit? Please note that checking "YES" will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review process. <input type="checkbox"/> 3-day review <input type="checkbox"/> 10-day review <input checked="" type="checkbox"/> No review requested	
8. HAVE YOU EVER APPLIED FOR AN ATC OR PTO IN THE PAST? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If yes, ATC/PTO #: <u>N-4597-1-2</u>	<b>Optional Section</b> 11. CHECK WHETHER YOU ARE A PARTICIPANT IN EITHER OF THESE VOLUNTARY PROGRAMS: "Healthy Air Living (HAL)" <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Send info "INSPECT" <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Send info  
9. HAVE ALL NECESSARY LAND-USE AUTHORIZATIONS BEEN OBTAINED? (If "No" is checked, please attach explanation) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
10. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION OR A NOTICE TO COMPLY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, NOV/NTC #:	
12. TYPE OR PRINT NAME OF APPLICANT: <b>Mark Kehoe</b>	TITLE OF APPLICANT: <b>Director, Environmental and Safety Projects</b>
13. SIGNATURE OF APPLICANT: 	DATE: <u>6/26/08</u>
PHONE #: (925) 431-1440 FAX #: (925) 431-0518 E-MAIL: <a href="mailto:mkehoe@gwfpower.com">mkehoe@gwfpower.com</a>	

**FOR APCD USE ONLY:**

DATE STAMP:	FILING FEE RECEIVED: \$ _____ CHECK #: _____ DATE PAID: _____ PROJECT #: _____ FACILITY ID: _____
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# San Joaquin Valley Air Pollution Control District Supplemental Application Form

## Gas Turbines

Please complete one form for each gas turbine.

*This form must be accompanied by a completed Application for Authority to Construct and Permit to Operate form*

PERMIT TO BE ISSUED TO: GWF Energy LLC – Tracy Combined Cycle Power Plant

### EQUIPMENT DESCRIPTION

<b>Equipment Details</b>	<input checked="" type="checkbox"/> Industrial Frame <input type="checkbox"/> Aero Derivative <input type="checkbox"/> Other: _____		
	Manufacturer: General Electric	Model: PG 7121EA	Serial Number: 298084
	<input type="checkbox"/> Simple Cycle <input checked="" type="checkbox"/> Combined Cycle <input type="checkbox"/> Co-generation <input type="checkbox"/> Other: _____		
	Nominal (ISO) Rating: <u>84.4</u> MW (at 1 atm, 59°F, 60% Relative Humidity)		
<b>Rule 4703 Type of Use and Emissions Monitoring Provisions</b>	<input type="checkbox"/> Peaking Unit - limited to no more than 877 hrs/yr of operation <input type="checkbox"/> Emergency Standby - limited to less than 200 hrs/yr of operation <input checked="" type="checkbox"/> Full Time - must have either a Continuous Emission Monitoring System (CEMS) or an alternate emissions monitoring plan (must be approved by the APCO) <input checked="" type="checkbox"/> CEMS, please specify all pollutants monitored: <input checked="" type="checkbox"/> NO <sub>x</sub> <input checked="" type="checkbox"/> CO <input checked="" type="checkbox"/> O <sub>2</sub> <input type="checkbox"/> Other: _____ <input type="checkbox"/> Alternate Emissions Monitoring Plan (please provide details in additional documentation)		
	<input checked="" type="checkbox"/> Gaseous Fuel Meter <input type="checkbox"/> Liquid Fuel Meter <input type="checkbox"/> None		
<b>Fuel Use Meter</b>			
<b>Process Data</b>	Will this unit be used in an electric utility rate reduction program? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>Combustor(s)</b>	Manufacturer:	Model: PG 7121EA	Number of Combustors: 10
	Maximum Heat Input Rating (for all combustors @ ISO standard conditions): 1091 MMBtu/hr		
	Water Injection: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Dry Low NO <sub>x</sub> Technology: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	Steam Injection: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Other NO <sub>x</sub> Control Technology: <u>SCR</u>	

### EMISSIONS DATA

Note: See District BACT and District Rule 4703 requirements for applicability to proposed unit at <a href="http://www.valleyair.org/busind/pto/bact/chapter3.pdf">http://www.valleyair.org/busind/pto/bact/chapter3.pdf</a> and <a href="http://www.valleyair.org/rules/curnrules/r4703.pdf">http://www.valleyair.org/rules/curnrules/r4703.pdf</a>							
<b>Primary Fuel</b>	Fuel Type: <input checked="" type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: _____						
	Higher Heating Value: <u>1020</u> Btu/gal or _____ Btu/scf	Sulfur Content: __ % by weight or <u>0.25</u> gr/scf					
	Maximum Fuel Use @ HHV: 1.07 MM scf/hr or _____ gal/hr	Rated Efficiency (EFF <sub>Mfg</sub> ): <u>30</u> %					
<b>Primary Fuel Emissions Data</b>	Operational Mode	Steady State		Start-up		Shutdown	
		(ppmv)	(lb/MMBtu)	(ppmv)	(lb/hr)	(ppmv)	(lb/hr)
	Nitrogen Oxides	2			200		106
	Carbon Monoxide	2			188		150
	Volatile Organic Compounds	2			5.5		3.2
	Duration			<u>3</u> hr/day	<u>428</u> hr/yr	<u>&lt;1</u> hr/day	<u>211</u> hr/yr
% O <sub>2</sub> , dry basis, if corrected to other than 15%: _____ %							

### EMISSIONS DATA (continued)

<b>Secondary Fuel</b>	When will the secondary fuel be used? <input type="checkbox"/> Primary fuel curtailment <input type="checkbox"/> Simultaneously with primary fuel <input type="checkbox"/> Other: _____							
	Fuel Type: <input type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: _____							
	Higher Heating Value: _____ Btu/gal or _____ Btu/scf			Sulfur Content: _____ % by weight or _____ gr/scf				
	Maximum Fuel Use @ HHV: _____ scf/hr or _____ gal/hr			Rated Efficiency (EFF <sub>Mfg</sub> ): _____ %				
<b>Secondary Fuel Emissions Data</b>	Operational Mode	Steady State (ppmv)   (lb/MMBtu)		Start-up (ppmv)   (lb/hr)		Shutdown (ppmv)   (lb/hr)		
	Nitrogen Oxides							
	Carbon Monoxide							
	Volatile Organic Compounds							
	Duration (please provide justification)				_____ hr/day	_____ hr/yr	_____ hr/day	_____ hr/yr
	% O <sub>2</sub> , dry basis, if corrected to other than 15%: _____ %							
<b>Source of Data</b>	<input type="checkbox"/> Manufacturer's Specifications <input type="checkbox"/> Emission Source Test <input type="checkbox"/> Other _____ (please provide copies)							

### EMISSIONS CONTROL

<b>Emissions Control Equipment</b> (Check all that apply)	<input checked="" type="checkbox"/> Inlet Air Filter/Cooler		<input checked="" type="checkbox"/> Lube Oil Vent Coalescer	
	<input checked="" type="checkbox"/> Selective Catalytic Reduction - Manufacturer: <u>TBD</u> Model: <u>TBD</u> <input checked="" type="checkbox"/> Ammonia (NH <sub>3</sub> ) <input type="checkbox"/> Urea <input type="checkbox"/> Other: _____			
	<input checked="" type="checkbox"/> Oxidation Catalyst - Manufacturer: <u>TBD</u> Model: <u>TBD</u>			
	Control Efficiencies: NO <sub>x</sub> <u>80</u> %, SO <sub>x</sub> <u>NA</u> %   PM <sub>10</sub> <u>NA</u> %, CO <u>90</u> %, VOC <u>45</u> %			
	<input type="checkbox"/> Other (please specify): _____			
	For units equipped with exhaust gas NO <sub>x</sub> control equipment and rated < 10 MW, or rated ≥ 10 MW but operated < 4,000 hr/yr, one may choose at least one of the following alternate emission monitoring schemes in lieu of a CEMS (each option below must be approved by APCO on a case-by-case basis. Please include a detailed proposal for each option chosen): <input type="checkbox"/> Periodic NO <sub>x</sub> emission concentration <input type="checkbox"/> Turbine exhaust O <sub>2</sub> concentration <input type="checkbox"/> Air-to-Fuel ratio <input type="checkbox"/> Flow rate of reducing agents added to turbine exhaust <input type="checkbox"/> Catalyst inlet and outlet temperature <input type="checkbox"/> Catalyst inlet and exhaust O <sub>2</sub> conc. <input type="checkbox"/> Other operational characteristics as approved by the APCO (specify on attached sheet)			

### HEALTH RISK ASSESSMENT DATA

<b>Operating Hours</b>	Maximum Operating Schedule: <u>24</u> hours per day, and <u>8639</u> hours per year		
<b>Receptor Data</b>	Distance to nearest Residence	<u>3520</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	Direction to nearest Residence	<u>east</u>	Direction from the stack to the receptor, i.e. Northeast or South.
	Distance to nearest Business	<u>790</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	Direction to nearest Business	<u>north</u>	Direction from the stack to the receptor, i.e. North or Southwest.
<b>Stack Parameters</b>	Release Height	<u>150</u> feet above grade	
	Stack Diameter	<u>204</u> inches at point of release	
	Rain Cap	<input type="checkbox"/> Flapper-type <input type="checkbox"/> Fixed-type <input checked="" type="checkbox"/> None <input type="checkbox"/> Other: _____	
	Direction of Flow	<input checked="" type="checkbox"/> Vertically Upward <input type="checkbox"/> Horizontal <input type="checkbox"/> Other: _____° from vert. or _____° from horiz.	
<b>Exhaust Data</b>	Flowrate: 673,048 acfm	Temperature: 188 °F	
<b>Facility Location</b>	<input type="checkbox"/> Urban (area of dense population) <input checked="" type="checkbox"/> Rural (area of sparse population)		

### FOR DISTRICT USE ONLY

<b>Date:</b>	<b>FID:</b>	<b>Project:</b>	<b>Public Notice:</b> [ ] Yes [ ] No
<b>Comments:</b>			

**San Joaquin Valley Air Pollution Control District  
Supplemental Application Form**

**Boilers, Steam Generators, Dryers, and Process Heaters**

Please complete one form for each different piece of equipment.

*This form must be accompanied by a completed Application for Authority to Construct and Permit to Operate form*

PERMIT TO BE ISSUED TO: GWF Energy LLC – GWF Tracy Combined Cycle Power Plant
LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: SW/4, Section 36, Township 2 south, Range 4 east

**EQUIPMENT DESCRIPTION**

<b>Equipment Details</b>	<input type="checkbox"/> Boiler <input type="checkbox"/> Steam Generator <input type="checkbox"/> Dryer <input type="checkbox"/> Process Heater <input type="checkbox"/> Refinery Unit <input checked="" type="checkbox"/> Other: <u>duct burner</u>	
	Manufacturer: TBD	
	Model: TBD	Serial Number:
	Steam: _____ pph, at _____ psig _____ bhp	
	Is this a "Load-Following" unit? <input type="checkbox"/> Yes <input type="checkbox"/> No (Note: A load following unit is a unit with normal operational load fluctuations and requirements which exceed the operational response range of an Ultra-Low NO <sub>x</sub> burner system operating at 9 ppmv NO <sub>x</sub> .)	
	<input type="checkbox"/> Indirect-Fired <input checked="" type="checkbox"/> Direct-Fired	
	Flue Gas Recirculation: <input type="checkbox"/> Forced FGR <input type="checkbox"/> Induced FGR <input checked="" type="checkbox"/> None	
Is an O <sub>2</sub> Controller present? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, Manufacturer:		
<b>Rules 4305/4306 Type of Use and Emissions Monitoring Provisions</b>	<input type="checkbox"/> Low Use - limited to less than 9 billion Btu/year, must have fuel use meter <input type="checkbox"/> Tune the unit at least twice per calendar year in accordance with District Rule 4304 <input type="checkbox"/> Operate the unit in a manner that maintains exhaust O <sub>2</sub> concentration ≥ 3.00% by volume on a dry basis	
	<input type="checkbox"/> Limited Use - limited from 9 billion Btu/year to 30 billion Btu/year, must have fuel use meter <input checked="" type="checkbox"/> Full Time - limited from greater than 30 billion Btu/year to full time operation (8,760 hrs/year)	
	Note: Low Use units must identify operational characteristics recommended by the manufacturer, which can be monitored on a monthly basis (please provide details in additional documentation).	
	Note: Limited Use or Full Time units must have either a Continuous Emission Monitoring System (CEMS) or one of the following alternate emissions monitoring plans <input checked="" type="checkbox"/> CEMS, please specify all pollutants monitored: <input checked="" type="checkbox"/> NO <sub>x</sub> <input checked="" type="checkbox"/> CO <input checked="" type="checkbox"/> O <sub>2</sub> <input type="checkbox"/> Other: _____ <input type="checkbox"/> Monitoring of NO <sub>x</sub> , CO, and O <sub>2</sub> concentrations <input type="checkbox"/> Periodic determination of flue gas recirculation rate by temperature measurement <input type="checkbox"/> Periodic determination of flue gas recirculation rate by O <sub>2</sub> measurement <input type="checkbox"/> Monitoring of burner mechanical adjustments and O <sub>2</sub> concentration <input type="checkbox"/> Monitoring of the flue gas recirculation valve(s) setting <input type="checkbox"/> Other Alternate Monitoring Plan (approved on a case by case basis), attach details	
	<input type="checkbox"/> Dryer - No Alternate Monitoring Required	
Note: See District policy (SSP-1105) for additional details of pre-approved alternate emissions monitoring plans, at: <a href="http://www.valleyair.org/policies_per/Policies/SSP_1105.pdf">http://www.valleyair.org/policies_per/Policies/SSP_1105.pdf</a>		
<b>Fuel Use Meter</b>	<input checked="" type="checkbox"/> Gaseous Fuel Meter <input type="checkbox"/> Liquid Fuel Meter <input type="checkbox"/> None	
<b>Primary Burner</b>	Manufacturer: TBD	Type: <input type="checkbox"/> Standard <input type="checkbox"/> Low NO <sub>x</sub> <input checked="" type="checkbox"/> Ultra Low NO <sub>x</sub>
	Model: TBD	Serial Number:
	Maximum Heat Input Rating: <u>324</u> MMBtu/hr	Annual Heat Input: <u>1004</u> billion Btu/year
<b>Secondary Burner</b> (if more than one burner is present)	Manufacturer:	Type: <input type="checkbox"/> Standard <input type="checkbox"/> Low NO <sub>x</sub> <input type="checkbox"/> Ultra Low NO <sub>x</sub>
	Model:	Serial Number:
	Maximum Heat Input Rating: _____ MMBtu/hr	Annual Heat Input: _____ billion Btu/year

### EMISSIONS DATA

Note: See District BACT and District Rules 4305 and 4306 requirements for applicability to proposed unit at <http://www.valleyair.org/busind/pto/bact/chapter1.pdf>, <http://www.valleyair.org/rules/curnrules/r4305.pdf>, and <http://www.valleyair.org/rules/curnrules/r4306.pdf>.

<b>Primary Fuel</b>	Fuel Type: <input checked="" type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: <u>See Turbine Form for Emission Data</u>						
	Higher Heating Value: _____ Btu/gal or <u>1020</u> Btu/scf			Sulfur Content: _____ % by weight or <u>0.25</u> gr/scf			
<b>Primary Fuel Emissions Data</b>	Operational Mode	Steady State (ppmv) (lb/MMBtu)		Start-up (ppmv) (lb/hr)		Shutdown (ppmv) (lb/hr)	
	Nitrogen Oxides						
	Carbon Monoxide						
	Volatile Organic Compounds						
	Duration (please provide justification)				_____ hr/day	_____ hr/yr	_____ hr/day
% O <sub>2</sub> , dry basis, if corrected to other than 3%: _____ %							
<b>Secondary Fuel</b>	Fuel Type: <input type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: _____						
	Higher Heating Value: _____ Btu/gal or _____ Btu/scf			Sulfur Content: _____ % by weight or _____ gr/scf			
	How will the secondary fuel be used? <input type="checkbox"/> Secondary full-time fuel <input type="checkbox"/> Backup for primary fuel <input type="checkbox"/> Other: _____						
<b>Secondary Fuel Emissions Data</b>	Operational Mode	Steady State (ppmv) (lb/MMBtu)		Start-up (ppmv) (lb/hr)		Shutdown (ppmv) (lb/hr)	
	Nitrogen Oxides						
	Carbon Monoxide						
	Volatile Organic Compounds						
	Duration (please provide justification)				_____ hr/day	_____ hr/yr	_____ hr/day
% O <sub>2</sub> , dry basis, if corrected to other than 3%: _____ %							
<b>Source of Data</b>	<input checked="" type="checkbox"/> Manufacturer's Specifications <input type="checkbox"/> Emission Source Test <input type="checkbox"/> Other _____ (please provide copies)						
<b>Additional Emissions Control Equipment</b>	<input type="checkbox"/> Selective Catalytic Reduction - Manufacturer: _____ Model: _____ <input type="checkbox"/> Ammonia (NH <sub>3</sub> ) <input type="checkbox"/> Urea <input type="checkbox"/> Other: _____						
	<input type="checkbox"/> Non-Selective Catalytic Reduction - Manufacturer: _____ Model: _____ Control Efficiencies: NO <sub>x</sub> _____ %, SO <sub>x</sub> _____ %, PM <sub>10</sub> _____ %, CO _____ %, VOC _____ %						
	<input type="checkbox"/> Other (please specify): _____						

### HEALTH RISK ASSESSMENT DATA

<b>Operating Hours</b>	Maximum Operating Schedule: <u>24</u> hours per day, and <u>3,100</u> hours per year		
<b>Receptor Data</b>	Distance to nearest Residence	<u>3400</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	Direction to nearest Residence	<u>east</u>	Direction from the stack to the receptor, i.e. Northeast or South.
	Distance to nearest Business	<u>850</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	Direction to nearest Business	<u>north</u>	Direction from the stack to the receptor, i.e. North or Southwest.
<b>Stack Parameters</b>	Release Height	<u>150</u> feet above grade	
	Stack Diameter	<u>204</u> inches at point of release	
	Rain Cap	<input type="checkbox"/> Flapper-type <input type="checkbox"/> Fixed-type <input checked="" type="checkbox"/> None <input type="checkbox"/> Other: _____	
	Direction of Flow	<input checked="" type="checkbox"/> Vertically Upward <input type="checkbox"/> Horizontal <input type="checkbox"/> Other: _____° from vert. or _____° from horiz.	
<b>Exhaust Data</b>	Flowrate: <u>(see turbine form)</u> acfm	Temperature: <u>(see turbine form)</u> °F	
<b>Facility Location</b>	<input type="checkbox"/> Urban (area of dense population) <input checked="" type="checkbox"/> Rural (area of sparse population)		

### FOR DISTRICT USE ONLY

<b>Date:</b>	<b>FID:</b>	<b>Project:</b>	<b>Public Notice:</b> [ ] Yes [ ] No
<b>Comments:</b>			

# San Joaquin Valley Air Pollution Control District

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

## Permit Application For:

- AUTHORITY TO CONSTRUCT (ATC) - New Emission Unit
- AUTHORITY TO CONSTRUCT (ATC) - Modification Of Emission Unit With Valid PTO/Valid ATC
- AUTHORITY TO CONSTRUCT (ATC) - Renewal of Valid Authority to Construct
- PERMIT TO OPERATE (PTO) - Existing Emission Unit Now Requiring a Permit to Operate

1. PERMIT TO BE ISSUED TO: <b>GWF Energy LLC – GWF Tracy Combined Cycle Power Plant</b>	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>4300 Railroad Avenue</u> CITY: <u>Pittsburg</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>94565-6006</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>14950 W. Schulte Rd.</u> CITY: <u>Tracy</u> <u>SW</u> /4 SECTION <u>36</u> TOWNSHIP <u>2 south</u> RANGE <u>4 east</u>	WITHIN 1,000 FT OF A SCHOOL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO S.I.C. CODE(S) OF FACILITY (If known): <u>4911</u>
4. GENERAL NATURE OF BUSINESS: <b>Electricity Generation</b>	INSTALL DATE: <b>August 2011</b>
5. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC (If yes, please complete and attach a Compliance Certification form (TVFORM-009)? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>	
6. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) <b>Conversion of the existing simple cycle GE PG7121EA turbine to a combined cycle turbine with duct burner – see Section 2, Section 5.1, and Section 5.9 of the GWF Tracy Application for Certification (AFC) for project description and assessment of air quality impacts.</b>	
7. PERMIT REVIEW PERIOD: Do you request a three- or ten-day period to review the draft Authority to Construct permit? Please note that checking "YES" will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review process. <span style="float: right;"><input type="checkbox"/> 3-day review <input type="checkbox"/> 10-day review <input checked="" type="checkbox"/> No review requested</span>	
8. HAVE YOU EVER APPLIED FOR AN ATC OR PTO IN THE PAST? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If yes, ATC/PTO #: <u>N-4597-2-2</u>	<b>Optional Section</b> 11. CHECK WHETHER YOU ARE A PARTICIPANT IN EITHER OF THESE VOLUNTARY PROGRAMS: "Healthy Air Living (HAL)" <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Send info "INSPECT" <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Send info  
9. HAVE ALL NECESSARY LAND-USE AUTHORIZATIONS BEEN OBTAINED? (If "No" is checked, please attach explanation) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
10. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION OR A NOTICE TO COMPLY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, NOV/NTC #:	
12. TYPE OR PRINT NAME OF APPLICANT: <b>Mark Kehoe</b>	TITLE OF APPLICANT: <b>Director, Environmental and Safety Projects</b>
13. SIGNATURE OF APPLICANT:  DATE: <u>6/26/08</u>	PHONE #: (925) 431-1440 FAX #: (925) 431-0518 E-MAIL: <a href="mailto:mkehoe@gwfpower.com">mkehoe@gwfpower.com</a>

**FOR APCD USE ONLY:**

DATE STAMP:	FILING FEE RECEIVED: \$ _____ CHECK #: _____ DATE PAID: _____ PROJECT #: _____ FACILITY ID: _____
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# San Joaquin Valley Air Pollution Control District Supplemental Application Form

## Gas Turbines

Please complete one form for each gas turbine.

*This form must be accompanied by a completed Application for Authority to Construct and Permit to Operate form*

PERMIT TO BE ISSUED TO: GWF Energy LLC – GWF Tracy Combined Cycle Power Plant

### EQUIPMENT DESCRIPTION

<b>Equipment Details</b>	<input checked="" type="checkbox"/> Industrial Frame <input type="checkbox"/> Aero Derivative <input type="checkbox"/> Other: _____		
	Manufacturer: General Electric	Model: PG 7121EA	Serial Number: 298085
	<input type="checkbox"/> Simple Cycle <input checked="" type="checkbox"/> Combined Cycle <input type="checkbox"/> Co-generation <input type="checkbox"/> Other: _____		
	Nominal (ISO) Rating: <u>84.4</u> MW (at 1 atm, 59°F, 60% Relative Humidity)		
<b>Rule 4703 Type of Use and Emissions Monitoring Provisions</b>	<input type="checkbox"/> Peaking Unit - limited to no more than 877 hrs/yr of operation <input type="checkbox"/> Emergency Standby - limited to less than 200 hrs/yr of operation <input checked="" type="checkbox"/> Full Time - must have either a Continuous Emission Monitoring System (CEMS) or an alternate emissions monitoring plan (must be approved by the APCO) <input checked="" type="checkbox"/> CEMS, please specify all pollutants monitored: <input checked="" type="checkbox"/> NO <sub>x</sub> <input checked="" type="checkbox"/> CO <input checked="" type="checkbox"/> O <sub>2</sub> <input type="checkbox"/> Other: _____ <input type="checkbox"/> Alternate Emissions Monitoring Plan (please provide details in additional documentation)		
	<input checked="" type="checkbox"/> Gaseous Fuel Meter <input type="checkbox"/> Liquid Fuel Meter <input type="checkbox"/> None		
<b>Fuel Use Meter</b>	<input checked="" type="checkbox"/> Gaseous Fuel Meter <input type="checkbox"/> Liquid Fuel Meter <input type="checkbox"/> None		
<b>Process Data</b>	Will this unit be used in an electric utility rate reduction program? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>Combustor(s)</b>	Manufacturer:		Model: PG 7121EA
	Number of Combustors: 10		
	Maximum Heat Input Rating (for all combustors @ ISO standard conditions): 1091 MMBtu/hr		
	Water Injection: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Dry Low NO <sub>x</sub> Technology: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Steam Injection: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Other NO <sub>x</sub> Control Technology: <u>SCR</u>		

### EMISSIONS DATA

Note: See District BACT and District Rule 4703 requirements for applicability to proposed unit at <a href="http://www.valleyair.org/busind/pto/bact/chapter3.pdf">http://www.valleyair.org/busind/pto/bact/chapter3.pdf</a> and <a href="http://www.valleyair.org/rules/curnrules/r4703.pdf">http://www.valleyair.org/rules/curnrules/r4703.pdf</a>							
<b>Primary Fuel</b>	Fuel Type: <input checked="" type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: _____						
	Higher Heating Value: <u>1020</u> Btu/gal or _____ Btu/scf		Sulfur Content: __ % by weight or <u>0.25</u> gr/scf				
	Maximum Fuel Use @ HHV: 1.07 MM scf/hr or _____ gal/hr		Rated Efficiency (EFF <sub>Mfg</sub> ): <u>30</u> %				
<b>Primary Fuel Emissions Data</b>	Operational Mode	Steady State		Start-up		Shutdown	
		(ppmv)	(lb/MMBtu)	(ppmv)	(lb/hr)	(ppmv)	(lb/hr)
	Nitrogen Oxides	2			200		106
	Carbon Monoxide	2			188		150
	Volatile Organic Compounds	2			5.5		3.2
	Duration			<u>3</u> hr/day	<u>428</u> hr/yr	<u>&lt;1</u> hr/day	<u>211</u> hr/yr
% O <sub>2</sub> , dry basis, if corrected to other than 15%: _____ %							

### EMISSIONS DATA (continued)

<b>Secondary Fuel</b>	When will the secondary fuel be used? <input type="checkbox"/> Primary fuel curtailment <input type="checkbox"/> Simultaneously with primary fuel <input type="checkbox"/> Other: _____							
	Fuel Type: <input type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: _____							
	Higher Heating Value: _____ Btu/gal or _____ Btu/scf			Sulfur Content: _____ % by weight or _____ gr/scf				
	Maximum Fuel Use @ HHV: _____ scf/hr or _____ gal/hr			Rated Efficiency (EFF <sub>Mfg</sub> ): _____ %				
<b>Secondary Fuel Emissions Data</b>	Operational Mode	Steady State (ppmv)   (lb/MMBtu)		Start-up (ppmv)   (lb/hr)		Shutdown (ppmv)   (lb/hr)		
	Nitrogen Oxides							
	Carbon Monoxide							
	Volatile Organic Compounds							
	Duration (please provide justification)				_____ hr/day	_____ hr/yr	_____ hr/day	_____ hr/yr
	% O <sub>2</sub> , dry basis, if corrected to other than 15%: _____ %							
<b>Source of Data</b>	<input type="checkbox"/> Manufacturer's Specifications <input type="checkbox"/> Emission Source Test <input type="checkbox"/> Other _____ (please provide copies)							

### EMISSIONS CONTROL

<b>Emissions Control Equipment</b> (Check all that apply)	<input checked="" type="checkbox"/> Inlet Air Filter/Cooler		<input checked="" type="checkbox"/> Lube Oil Vent Coalescer	
	<input checked="" type="checkbox"/> Selective Catalytic Reduction - Manufacturer: <u>TBD</u> Model: <u>TBD</u> <input checked="" type="checkbox"/> Ammonia (NH <sub>3</sub> ) <input type="checkbox"/> Urea <input type="checkbox"/> Other: _____			
	<input checked="" type="checkbox"/> Oxidation Catalyst - Manufacturer: <u>TBD</u> Model: <u>TBD</u>			
	Control Efficiencies: NO <sub>x</sub> <u>80</u> %, SO <sub>x</sub> <u>NA</u> %   PM <sub>10</sub> <u>NA</u> %, CO <u>90</u> %, VOC <u>45</u> %			
	<input type="checkbox"/> Other (please specify): _____			
	For units equipped with exhaust gas NO <sub>x</sub> control equipment and rated < 10 MW, or rated ≥ 10 MW but operated < 4,000 hr/yr, one may choose at least one of the following alternate emission monitoring schemes in lieu of a CEMS (each option below must be approved by APCO on a case-by-case basis. Please include a detailed proposal for each option chosen): <input type="checkbox"/> Periodic NO <sub>x</sub> emission concentration <input type="checkbox"/> Turbine exhaust O <sub>2</sub> concentration <input type="checkbox"/> Air-to-Fuel ratio <input type="checkbox"/> Flow rate of reducing agents added to turbine exhaust <input type="checkbox"/> Catalyst inlet and outlet temperature <input type="checkbox"/> Catalyst inlet and exhaust O <sub>2</sub> conc. <input type="checkbox"/> Other operational characteristics as approved by the APCO (specify on attached sheet)			

### HEALTH RISK ASSESSMENT DATA

<b>Operating Hours</b>	Maximum Operating Schedule: <u>24</u> hours per day, and <u>8639</u> hours per year		
<b>Receptor Data</b>	Distance to nearest Residence	<u>3400</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	Direction to nearest Residence	<u>east</u>	Direction from the stack to the receptor, i.e. Northeast or South.
	Distance to nearest Business	<u>850</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	Direction to nearest Business	<u>north</u>	Direction from the stack to the receptor, i.e. North or Southwest.
<b>Stack Parameters</b>	Release Height	<u>150</u> feet above grade	
	Stack Diameter	<u>204</u> inches at point of release	
	Rain Cap	<input type="checkbox"/> Flapper-type <input type="checkbox"/> Fixed-type <input checked="" type="checkbox"/> None <input type="checkbox"/> Other: _____	
	Direction of Flow	<input checked="" type="checkbox"/> Vertically Upward <input type="checkbox"/> Horizontal <input type="checkbox"/> Other: _____° from vert. or _____° from horiz.	
<b>Exhaust Data</b>	Flowrate: 673,048 acfm	Temperature: 188°F	
<b>Facility Location</b>	<input type="checkbox"/> Urban (area of dense population) <input checked="" type="checkbox"/> Rural (area of sparse population)		

### FOR DISTRICT USE ONLY

<b>Date:</b>	<b>FID:</b>	<b>Project:</b>	<b>Public Notice:</b> [ ] Yes [ ] No
<b>Comments:</b>			

**San Joaquin Valley Air Pollution Control District  
Supplemental Application Form**

**Boilers, Steam Generators, Dryers, and Process Heaters**

Please complete one form for each different piece of equipment.

*This form must be accompanied by a completed Application for Authority to Construct and Permit to Operate form*

PERMIT TO BE ISSUED TO: GWF Energy LLC – GWF Tracy Combined Cycle Power Plant
LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: SW/4, Section 36, Township 2 south, Range 4 east

**EQUIPMENT DESCRIPTION**

<b>Equipment Details</b>	<input type="checkbox"/> Boiler <input type="checkbox"/> Steam Generator <input type="checkbox"/> Dryer <input type="checkbox"/> Process Heater <input type="checkbox"/> Refinery Unit <input checked="" type="checkbox"/> Other: <u>duct burner</u>	
	Manufacturer: TBD	
	Model: TBD	Serial Number:
	Steam: _____ pph, at _____ psig _____ bhp	
	Is this a "Load-Following" unit? <input type="checkbox"/> Yes <input type="checkbox"/> No <small>(Note: A load following unit is a unit with normal operational load fluctuations and requirements which exceed the operational response range of an Ultra-Low NO<sub>x</sub> burner system operating at 9 ppmv NO<sub>x</sub>.)</small>	
	<input type="checkbox"/> Indirect-Fired <input checked="" type="checkbox"/> Direct-Fired	
	Flue Gas Recirculation: <input type="checkbox"/> Forced FGR <input type="checkbox"/> Induced FGR <input checked="" type="checkbox"/> None	
Is an O <sub>2</sub> Controller present? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, Manufacturer:		
<b>Rules 4305/4306 Type of Use and Emissions Monitoring Provisions</b>	<input type="checkbox"/> Low Use - limited to less than 9 billion Btu/year, must have fuel use meter <input type="checkbox"/> Tune the unit at least twice per calendar year in accordance with District Rule 4304 <input type="checkbox"/> Operate the unit in a manner that maintains exhaust O <sub>2</sub> concentration ≥ 3.00% by volume on a dry basis	
	<input type="checkbox"/> Limited Use - limited from 9 billion Btu/year to 30 billion Btu/year, must have fuel use meter <input checked="" type="checkbox"/> Full Time - limited from greater than 30 billion Btu/year to full time operation (8,760 hrs/year)	
	<small>Note: Low Use units must identify operational characteristics recommended by the manufacturer, which can be monitored on a monthly basis (please provide details in additional documentation).</small>	
	<small>Note: Limited Use or Full Time units must have either a Continuous Emission Monitoring System (CEMS) or one of the following alternate emissions monitoring plans</small> <input checked="" type="checkbox"/> CEMS, please specify all pollutants monitored: <input checked="" type="checkbox"/> NO <sub>x</sub> <input checked="" type="checkbox"/> CO <input checked="" type="checkbox"/> O <sub>2</sub> <input type="checkbox"/> Other: _____ <input type="checkbox"/> Monitoring of NO <sub>x</sub> , CO, and O <sub>2</sub> concentrations <input type="checkbox"/> Periodic determination of flue gas recirculation rate by temperature measurement <input type="checkbox"/> Periodic determination of flue gas recirculation rate by O <sub>2</sub> measurement <input type="checkbox"/> Monitoring of burner mechanical adjustments and O <sub>2</sub> concentration <input type="checkbox"/> Monitoring of the flue gas recirculation valve(s) setting <input type="checkbox"/> Other Alternate Monitoring Plan (approved on a case by case basis), attach details	
	<input type="checkbox"/> Dryer - No Alternate Monitoring Required	
<small>Note: See District policy (SSP-1105) for additional details of pre-approved alternate emissions monitoring plans, at: <a href="http://www.valleyair.org/policies_per/Policies/SSP_1105.pdf">http://www.valleyair.org/policies_per/Policies/SSP_1105.pdf</a></small>		
<b>Fuel Use Meter</b>	<input checked="" type="checkbox"/> Gaseous Fuel Meter <input type="checkbox"/> Liquid Fuel Meter <input type="checkbox"/> None	
<b>Primary Burner</b>	Manufacturer: TBD	Type: <input type="checkbox"/> Standard <input type="checkbox"/> Low NO <sub>x</sub> <input checked="" type="checkbox"/> Ultra Low NO <sub>x</sub>
	Model: TBD	Serial Number:
	Maximum Heat Input Rating: <u>324</u> MMBtu/hr	Annual Heat Input: <u>1004</u> billion Btu/year
<b>Secondary Burner</b> <small>(if more than one burner is present)</small>	Manufacturer:	Type: <input type="checkbox"/> Standard <input type="checkbox"/> Low NO <sub>x</sub> <input type="checkbox"/> Ultra Low NO <sub>x</sub>
	Model:	Serial Number:
	Maximum Heat Input Rating: _____ MMBtu/hr	Annual Heat Input: _____ billion Btu/year

### EMISSIONS DATA

Note: See District BACT and District Rules 4305 and 4306 requirements for applicability to proposed unit at <http://www.valleyair.org/busind/pto/bact/chapter1.pdf>, <http://www.valleyair.org/rules/curnrules/r4305.pdf>, and <http://www.valleyair.org/rules/curnrules/r4306.pdf>.

<b>Primary Fuel</b>	Fuel Type: <input checked="" type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: See Turbine Form for Emission Data _____						
	Higher Heating Value: _____ Btu/gal or <u>1020</u> Btu/scf			Sulfur Content: _____ % by weight or <u>0.25</u> gr/scf			
<b>Primary Fuel Emissions Data</b>	Operational Mode	Steady State (ppmv) (lb/MMBtu)		Start-up (ppmv) (lb/hr)		Shutdown (ppmv) (lb/hr)	
	Nitrogen Oxides						
	Carbon Monoxide						
	Volatile Organic Compounds						
	Duration (please provide justification)				_____ hr/day	_____ hr/yr	_____ hr/day
% O <sub>2</sub> , dry basis, if corrected to other than 3%: _____ %							
<b>Secondary Fuel</b>	Fuel Type: <input type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: _____						
	Higher Heating Value: _____ Btu/gal or _____ Btu/scf			Sulfur Content: _____ % by weight or _____ gr/scf			
	How will the secondary fuel be used? <input type="checkbox"/> Secondary full-time fuel <input type="checkbox"/> Backup for primary fuel <input type="checkbox"/> Other: _____						
<b>Secondary Fuel Emissions Data</b>	Operational Mode	Steady State (ppmv) (lb/MMBtu)		Start-up (ppmv) (lb/hr)		Shutdown (ppmv) (lb/hr)	
	Nitrogen Oxides						
	Carbon Monoxide						
	Volatile Organic Compounds						
	Duration (please provide justification)				_____ hr/day	_____ hr/yr	_____ hr/day
% O <sub>2</sub> , dry basis, if corrected to other than 3%: _____ %							
<b>Source of Data</b>	<input checked="" type="checkbox"/> Manufacturer's Specifications <input type="checkbox"/> Emission Source Test <input type="checkbox"/> Other _____ (please provide copies)						
<b>Additional Emissions Control Equipment</b>	<input type="checkbox"/> Selective Catalytic Reduction - Manufacturer: _____ Model: _____ <input type="checkbox"/> Ammonia (NH <sub>3</sub> ) <input type="checkbox"/> Urea <input type="checkbox"/> Other: _____						
	<input type="checkbox"/> Non-Selective Catalytic Reduction - Manufacturer: _____ Model: _____ Control Efficiencies: NO <sub>x</sub> _____ %, SO <sub>x</sub> _____ %, PM <sub>10</sub> _____ %, CO _____ %, VOC _____ %						
	<input type="checkbox"/> Other (please specify): _____						

### HEALTH RISK ASSESSMENT DATA

<b>Operating Hours</b>	Maximum Operating Schedule: <u>24</u> hours per day, and <u>3,100</u> hours per year		
<b>Receptor Data</b>	Distance to nearest Residence	<u>3400</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	Direction to nearest Residence	<u>east</u>	Direction from the stack to the receptor, i.e. Northeast or South.
	Distance to nearest Business	<u>850</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	Direction to nearest Business	<u>north</u>	Direction from the stack to the receptor, i.e. North or Southwest.
<b>Stack Parameters</b>	Release Height	<u>150</u> feet above grade	
	Stack Diameter	<u>204</u> inches at point of release	
	Rain Cap	<input type="checkbox"/> Flapper-type <input type="checkbox"/> Fixed-type <input checked="" type="checkbox"/> None <input type="checkbox"/> Other: _____	
	Direction of Flow	<input checked="" type="checkbox"/> Vertically Upward <input type="checkbox"/> Horizontal <input type="checkbox"/> Other: _____° from vert. or _____° from horiz.	
<b>Exhaust Data</b>	Flowrate: <u>(see turbine form)</u> acfm	Temperature: <u>(see turbine form)</u> °F	
<b>Facility Location</b>	<input type="checkbox"/> Urban (area of dense population) <input checked="" type="checkbox"/> Rural (area of sparse population)		

### FOR DISTRICT USE ONLY

<b>Date:</b>	<b>FID:</b>	<b>Project:</b>	<b>Public Notice:</b> [ ] Yes [ ] No
<b>Comments:</b>			

# San Joaquin Valley Air Pollution Control District

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

## Permit Application For:

- AUTHORITY TO CONSTRUCT (ATC) - New Emission Unit
- AUTHORITY TO CONSTRUCT (ATC) - Modification Of Emission Unit With Valid PTO/Valid ATC
- AUTHORITY TO CONSTRUCT (ATC) - Renewal of Valid Authority to Construct
- PERMIT TO OPERATE (PTO) - Existing Emission Unit Now Requiring a Permit to Operate

1. PERMIT TO BE ISSUED TO: <b>GWF Energy LLC – GWF Tracy Combined Cycle Power Plant</b>	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>4300 Railroad Avenue</u> CITY: <u>Pittsburg</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>94565-6006</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>14950 W. Schulte Rd</u> CITY: <u>Tracy</u> <u>SW</u> /4 SECTION <u>36</u> TOWNSHIP <u>2 south</u> RANGE <u>4 east</u>	WITHIN 1,000 FT OF A SCHOOL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO S.I.C. CODE(S) OF FACILITY (If known): <u>4911</u>
4. GENERAL NATURE OF BUSINESS: Electricity Generation	INSTALL DATE: <b>Aug 2011</b>
5. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC (If yes, please complete and attach a Compliance Certification form (TVFORM-009)? <span style="float: right;"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</span>	
6. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) <b>Installation of an 85 MMBTU/hr natural gas fired auxiliary boiler. Installation is part of the conversion from the existing simple cycle GE PG7121EA turbine configuration to a combined cycle turbine with duct burner configuration – see Section 2, Section 5.1, and Section 5.9 of the GWF Tracy Application for Certification (AFC) for project description and assessment of air quality impacts.</b>	
7. PERMIT REVIEW PERIOD: Do you request a three- or ten-day period to review the draft Authority to Construct permit? Please note that checking “YES” will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review process. <span style="float: right;"><input type="checkbox"/> 3-day review <input type="checkbox"/> 10-day review <input checked="" type="checkbox"/> No review requested</span>	
8. HAVE YOU EVER APPLIED FOR AN ATC OR PTO IN THE PAST? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If yes, ATC/PTO #: <u>N-4597</u>	<b>Optional Section</b> 11. CHECK WHETHER YOU ARE A PARTICIPANT IN EITHER OF THESE VOLUNTARY PROGRAMS: “Healthy Air Living (HAL)” <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Send info “INSPECT” <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Send info  
9. HAVE ALL NECESSARY LAND-USE AUTHORIZATIONS BEEN OBTAINED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (If “No” is checked, please attach explanation)	
10. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION OR A NOTICE TO COMPLY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, NOV/NTC #:	
12. TYPE OR PRINT NAME OF APPLICANT: <b>Mark Kehoe</b>	TITLE OF APPLICANT: <b>Director, Environmental and Safety Programs</b>
13. SIGNATURE OF APPLICANT:  DATE: <u>6/26/08</u>	PHONE #: (925) 431-1440 FAX #: (925) 431-0518 E-MAIL: <a href="mailto:mkehoe@gwfpower.com">mkehoe@gwfpower.com</a>

**FOR APCD USE ONLY:**

DATE STAMP:	FILING FEE RECEIVED: \$ _____ CHECK #: _____
	DATE PAID: _____
	PROJECT #: _____ FACILITY ID: _____

**San Joaquin Valley Air Pollution Control District  
Supplemental Application Form**

**Boilers, Steam Generators, Dryers, and Process Heaters**

Please complete one form for each different piece of equipment.

*This form must be accompanied by a completed Application for Authority to Construct and Permit to Operate form*

PERMIT TO BE ISSUED TO: GWF Energy LLC – GWF Tracy Combined Cycle Power Plant
LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: SW/4, Section 36, Township 2 south, Range 4 east

**EQUIPMENT DESCRIPTION**

<b>Equipment Details</b>	<input checked="" type="checkbox"/> Boiler <input type="checkbox"/> Steam Generator <input type="checkbox"/> Dryer <input type="checkbox"/> Process Heater <input type="checkbox"/> Refinery Unit <input type="checkbox"/> Other: _____	
	Manufacturer: TBD	
	Model: TBD	Serial Number: TBD
	Steam: _____ pph, at _____ psig _____ bhp	
	Is this a "Load-Following" unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Note: A load following unit is a unit with normal operational load fluctuations and requirements which exceed the operational response range of an Ultra-Low NO <sub>x</sub> burner system operating at 9 ppmv NO <sub>x</sub> .)	
	<input type="checkbox"/> Indirect-Fired <input checked="" type="checkbox"/> Direct-Fired	
	Flue Gas Recirculation: <input type="checkbox"/> Forced FGR <input checked="" type="checkbox"/> Induced FGR <input type="checkbox"/> None	
Is an O <sub>2</sub> Controller present? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes, Manufacturer: TBD		
<b>Rules 4305/4306 Type of Use and Emissions Monitoring Provisions</b>	<input type="checkbox"/> Low Use - limited to less than 9 billion Btu/year, must have fuel use meter <input type="checkbox"/> Tune the unit at least twice per calendar year in accordance with District Rule 4304 <input type="checkbox"/> Operate the unit in a manner that maintains exhaust O <sub>2</sub> concentration ≥ 3.00% by volume on a dry basis	
	<input type="checkbox"/> Limited Use - limited from 9 billion Btu/year to 30 billion Btu/year, must have fuel use meter <input checked="" type="checkbox"/> Full Time - limited from greater than 30 billion Btu/year to full time operation (8,760 hrs/year)	
	Note: Low Use units must identify operational characteristics recommended by the manufacturer, which can be monitored on a monthly basis (please provide details in additional documentation).	
	Note: Limited Use or Full Time units must have either a Continuous Emission Monitoring System (CEMS) or one of the following alternate emissions monitoring plans <input checked="" type="checkbox"/> CEMS, please specify all pollutants monitored: <input checked="" type="checkbox"/> NO <sub>x</sub> <input checked="" type="checkbox"/> CO <input checked="" type="checkbox"/> O <sub>2</sub> <input type="checkbox"/> Other: _____ <input type="checkbox"/> Monitoring of NO <sub>x</sub> , CO, and O <sub>2</sub> concentrations <input type="checkbox"/> Periodic determination of flue gas recirculation rate by temperature measurement <input type="checkbox"/> Periodic determination of flue gas recirculation rate by O <sub>2</sub> measurement <input type="checkbox"/> Monitoring of burner mechanical adjustments and O <sub>2</sub> concentration <input type="checkbox"/> Monitoring of the flue gas recirculation valve(s) setting <input type="checkbox"/> Other Alternate Monitoring Plan (approved on a case by case basis), attach details <input type="checkbox"/> Dryer - No Alternate Monitoring Required	
	Note: See District policy (SSP-1105) for additional details of pre-approved alternate emissions monitoring plans, at: <a href="http://www.valleyair.org/policies_per/Policies/SSP_1105.pdf">http://www.valleyair.org/policies_per/Policies/SSP_1105.pdf</a>	
<b>Fuel Use Meter</b>	<input checked="" type="checkbox"/> Gaseous Fuel Meter <input type="checkbox"/> Liquid Fuel Meter <input type="checkbox"/> None	
<b>Primary Burner</b>	Manufacturer:	Type: <input type="checkbox"/> Standard <input type="checkbox"/> Low NO <sub>x</sub> <input checked="" type="checkbox"/> Ultra Low NO <sub>x</sub>
	Model:	Serial Number:
	Maximum Heat Input Rating: <u>85</u> MMBtu/hr	Annual Heat Input: <u>340</u> billion Btu/year
<b>Secondary Burner</b> (if more than one burner is present)	Manufacturer:	Type: <input type="checkbox"/> Standard <input type="checkbox"/> Low NO <sub>x</sub> <input type="checkbox"/> Ultra Low NO <sub>x</sub>
	Model:	Serial Number:
	Maximum Heat Input Rating:   _____ MMBtu/hr	Annual Heat Input:   _____ billion Btu/year

## EMISSIONS DATA

Note: See District BACT and District Rules 4305 and 4306 requirements for applicability to proposed unit at <http://www.valleyair.org/busind/pto/bact/chapter1.pdf>, <http://www.valleyair.org/rules/curnrules/r4305.pdf>, and <http://www.valleyair.org/rules/curnrules/r4306.pdf>.

<b>Primary Fuel</b>	Fuel Type: <input checked="" type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: _____						
	Higher Heating Value: _____ Btu/gal or <u>1020</u> Btu/scf			Sulfur Content: _____ % by weight or <u>0.66</u> gr/scf			
<b>Primary Fuel Emissions Data</b>	Operational Mode	Steady State (ppmv) (lb/MMBtu)		Start-up (ppmv) (lb/hr)		Shutdown (ppmv) (lb/hr)	
	Nitrogen Oxides		0.0073				
	Carbon Monoxide		0.037				
	Volatile Organic Compounds		0.005				
	Duration (please provide justification)			_____ hr/day	_____ hr/yr	_____ hr/day	_____ hr/yr
% O <sub>2</sub> , dry basis, if corrected to other than 3%: _____ %							
<b>Secondary Fuel</b>	Fuel Type: <input type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: _____						
	Higher Heating Value: _____ Btu/gal or _____ Btu/scf			Sulfur Content: _____ % by weight or _____ gr/scf			
	How will the secondary fuel be used? <input type="checkbox"/> Secondary full-time fuel <input type="checkbox"/> Backup for primary fuel <input type="checkbox"/> Other: _____						
<b>Secondary Fuel Emissions Data</b>	Operational Mode	Steady State (ppmv) (lb/MMBtu)		Start-up (ppmv) (lb/hr)		Shutdown (ppmv) (lb/hr)	
	Nitrogen Oxides						
	Carbon Monoxide						
	Volatile Organic Compounds						
	Duration (please provide justification)			_____ hr/day	_____ hr/yr	_____ hr/day	_____ hr/yr
% O <sub>2</sub> , dry basis, if corrected to other than 3%: _____ %							
<b>Source of Data</b>	<input checked="" type="checkbox"/> Manufacturer's Specifications <input type="checkbox"/> Emission Source Test <input type="checkbox"/> Other _____ (please provide copies)						
<b>Additional Emissions Control Equipment</b>	<input type="checkbox"/> Selective Catalytic Reduction - Manufacturer: _____ Model: _____ <input type="checkbox"/> Ammonia (NH <sub>3</sub> ) <input type="checkbox"/> Urea <input type="checkbox"/> Other: _____						
	<input type="checkbox"/> Non-Selective Catalytic Reduction - Manufacturer: _____ Model: _____ Control Efficiencies: NO <sub>x</sub> _____ %, SO <sub>x</sub> _____ %, PM <sub>10</sub> _____ %, CO _____ %, VOC _____ %						
	<input type="checkbox"/> Other (please specify): _____						

## HEALTH RISK ASSESSMENT DATA

<b>Operating Hours</b>	Maximum Operating Schedule: <u>24</u> hours per day, and <u>4000</u> hours per year					
<b>Receptor Data</b>	Distance to nearest Residence	<u>3600</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.			
	Direction to nearest Residence	<u>east</u>	Direction from the stack to the receptor, i.e. Northeast or South.			
	Distance to nearest Business	<u>900</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.			
	Direction to nearest Business	<u>north</u>	Direction from the stack to the receptor, i.e. North or Southwest.			
<b>Stack Parameters</b>	Release Height	<u>50</u> feet above grade				
	Stack Diameter	<u>48</u> inches at point of release				
	Rain Cap	<input type="checkbox"/> Flapper-type <input type="checkbox"/> Fixed-type <input checked="" type="checkbox"/> None <input type="checkbox"/> Other: _____				
	Direction of Flow	<input checked="" type="checkbox"/> Vertically Upward <input type="checkbox"/> Horizontal <input type="checkbox"/> Other: _____° from vert. or _____° from horiz.				
<b>Exhaust Data</b>	Flowrate: <u>14407</u> acfm			Temperature: <u>300</u> °F		
<b>Facility Location</b>	<input type="checkbox"/> Urban (area of dense population) <input checked="" type="checkbox"/> Rural (area of sparse population)					

## FOR DISTRICT USE ONLY

<b>Date:</b>	<b>FID:</b>	<b>Project:</b>	<b>Public Notice:</b> [ ] Yes [ ] No
<b>Comments:</b>			

# San Joaquin Valley Air Pollution Control District

www.valleyair.org

## Permit Application For:

- AUTHORITY TO CONSTRUCT (ATC) - New Emission Unit  
 AUTHORITY TO CONSTRUCT (ATC) - Modification Of Emission Unit With Valid PTO/Valid ATC  
 AUTHORITY TO CONSTRUCT (ATC) - Renewal of Valid Authority to Construct  
 PERMIT TO OPERATE (PTO) - Existing Emission Unit Now Requiring a Permit to Operate

1. PERMIT TO BE ISSUED TO: <b>GWF Energy LLC – GWF Tracy Combined Cycle Power Plant</b>	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>4300 Railroad Avenue</u> 9-DIGIT CITY: <u>Pittsburg</u> STATE: <u>CA</u> ZIP CODE: <u>94565-6006</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>14950 W. Schulte Rd.</u> CITY: <u>Tracy</u> <u>SW</u> /4 SECTION <u>36</u> TOWNSHIP <u>2 south</u> RANGE <u>4 east</u>	WITHIN 1,000 FT OF A SCHOOL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO S.I.C. CODE(S) OF FACILITY (If known): <u>4911</u> INSTALL DATE: Existing
4. GENERAL NATURE OF BUSINESS: <b>Electricity Generation</b>	
5. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC (If yes, please complete and attach a Compliance Certification form (TVFORM-009)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
6. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) <b>Modification of the existing emergency engine N-4597-4-1 permit condition (operating hours) from 200 hours to 50 hours for non-emergency use.</b>	
7. PERMIT REVIEW PERIOD: Do you request a three- or ten-day period to review the draft Authority to Construct permit? Please note that checking "YES" will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review process. <input type="checkbox"/> 3-day review <input type="checkbox"/> 10-day review <input checked="" type="checkbox"/> No review requested	
8. HAVE YOU EVER APPLIED FOR AN ATC OR PTO IN THE PAST? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If yes, ATC/PTO #: <u>N-4597-4-1</u>	<b>Optional Section</b> 11. CHECK WHETHER YOU ARE A PARTICIPANT IN EITHER OF THESE VOLUNTARY PROGRAMS: "Healthy Air Living (HAL)" <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Send info "INSPECT" <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Send info  
9. HAVE ALL NECESSARY LAND-USE AUTHORIZATIONS BEEN OBTAINED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (If "No" is checked, please attach explanation)	
10. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION OR A NOTICE TO COMPLY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, NOV/NTC #:	
12. TYPE OR PRINT NAME OF APPLICANT: <b>Mark Kehoe</b>	TITLE OF APPLICANT: <b>Director, Environmental and Safety Projects</b>
13. SIGNATURE OF APPLICANT:  DATE: <u>6/26/09</u>	PHONE #: (925) 431-1440 FAX #: (925) 431-0518 E-MAIL: mkehoe@gwfpower.com

**FOR APCD USE ONLY:**

DATE STAMP:	FILING FEE RECEIVED: \$ _____ CHECK #: _____
	DATE PAID: _____
	PROJECT #: _____ FACILITY ID: _____

**San Joaquin Valley Air Pollution Control District  
Supplemental Application Form**

**Emergency/Low-Use IC Engines for Non-Agricultural Operations**

Please complete one form for each engine.

*This form must be accompanied by a completed Application for Authority to Construct and Permit to Operate form*

PERMIT TO BE ISSUED TO: GWF Energy LLC – GWF Tracy Combined Cycle Power Plant
LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: SW/4, Section 36, Township 2 south, Range 4 east

**EQUIPMENT DESCRIPTION**

<b>Engine Details</b>	Engine Manufacturer: Caterpillar		Number of Cylinders: 6
	Engine Model: 3456 DI TA AA		Engine Year of Manufacture: 2002
	Engine Serial Number: 3PG00493		Engine Tier Rating: II
	Engine Certification Family Number:		
	Engine's Type of Combustion: <input type="checkbox"/> Rich-Burn <input type="checkbox"/> Lean-Burn <input checked="" type="checkbox"/> 4-Stroke <input type="checkbox"/> 2-Stroke		
	Engine Manufacturer's Maximum Rated Power Output (per the data plate): <u>471</u> bhp		
	Engine's Rated Power Output for the Process the Engine Serves: <u>471</u> bhp		
<b>Process Data</b>	Process the Engine Serves: Emergency Diesel Generator		
	Electrical Power Generation Only	Generator Manufacturer: Caterpillar	Model: SRB4
		Power Output: <u>300</u> kW	
Will this equipment be used in an electric utility rate reduction program? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Fuel Data</b>	Fuel Type: <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Gasoline <input type="checkbox"/> Other: _____		
	For "Other" fuels only: Higher Heating Value: _____ Btu/scf, or _____ Btu/gal, For "Other" fuels only: An Ultimate Fuel Analysis or the combustion F-Factor _____ dscf/MMBtu		
	Sulfur Content: _____ gr/100 scf (gaseous fuel) or <u>0.015</u> % by weight (liquid fuel)		
	Fuel Consumption at Maximum Rated Output: <u>22.3</u> gal/hr, or _____ scf/hr		
<b>Rule 4702 Type of Use</b>	<input checked="" type="checkbox"/> <b>Emergency Standby</b> - Limited exclusively to power primary mechanical or an electrical generator during periods of unscheduled power outages beyond the control of the operator, and limited from 20 to 100 hrs/yr (depending on the engine's PM <sub>10</sub> emission factor) for maintenance and testing purposes only. <input type="checkbox"/> This engine is specifically used to power a pump for a municipal water supply. <input type="checkbox"/> I request the higher opacity limit of 40% with the corresponding operational limits of 30 minutes per week and 2 hours per month for maintenance and testing. (CH&SC 41701.6) <input type="checkbox"/> I request the lower opacity limit of 20%. <input type="checkbox"/> This engine is specifically used to provide power at a health care facility. (CH&SC 1250) <input type="checkbox"/> This engine is subject to Office of Statewide Health Planning and Development (OSHPD) requirements. <input type="checkbox"/> <b>Special Case Emergency</b> - Limited exclusively to preserve or protect property, human life, or public health during a disaster or a state emergency (e.g. fire or flood) and limited to 20 to 100 hrs/yr (depending on the engine's PM <sub>10</sub> emission factor) for maintenance and testing purposes only. <input type="checkbox"/> This engine is specifically used to power a direct-drive firewater pump. <input type="checkbox"/> This firewater pump engine is subject to National Fire Protection Association (NFPA) requirements. <input type="checkbox"/> <b>Low Use</b> - Limited to ≤ 200 hrs/yr of operation for <b>ALL</b> purposes combined, including maintenance and testing.		

<b>Hour Meter</b>	Note: All engines are required to have either a nonresettable elapsed time meter or an alternate device, method, or technique, approved by the APCO, for determining elapsed operating time.	
	<input checked="" type="checkbox"/> Equipped with a Nonresettable Elapsed Operating Time Meter <input type="checkbox"/> Alternate Method (please provide details): _____	

### EMISSIONS CONTROL

<b>Emissions Control Equipment</b> (Check all that apply)	<input checked="" type="checkbox"/> Positive Crankcase Ventilation	<input checked="" type="checkbox"/> 90% Efficient crankcase emission control device
	<input checked="" type="checkbox"/> Turbocharger	<input checked="" type="checkbox"/> Intercooler/Aftercooler
	<input checked="" type="checkbox"/> Automatic Air/Fuel Ratio or O <sub>2</sub> Controller - Manufacturer: _____	
	<input type="checkbox"/> Non-Selective Catalytic Reduction: Manufacturer: _____ Model: _____	
	Control Efficiencies: NO <sub>x</sub> _____ %, SO <sub>x</sub> _____ %, PM <sub>10</sub> _____ %, CO _____ %, VOC _____ %	
	<input type="checkbox"/> Particulate Filter - Manufacturer: _____ Model: _____ Control Efficiency: _____ %	
<input type="checkbox"/> Other (please specify): _____		

### EMISSIONS DATA

Note: See District BACT and District Rule 4702 requirements for applicability to proposed engine at <a href="http://www.valleyair.org/busind/pto/bact/chapter3.pdf">http://www.valleyair.org/busind/pto/bact/chapter3.pdf</a> and <a href="http://www.valleyair.org/rules/currentrules/r4702.pdf">http://www.valleyair.org/rules/currentrules/r4702.pdf</a> .				
<b>Emissions Data</b>	<b>Pollutant</b>	<b>(g/bhp-hr)</b>	<b>(g/kW-hr)</b>	<b>(ppmvd)</b>
	Nitrogen Oxides (NO <sub>x</sub> )	4.69		
	Volatile Organic Compounds (VOC)	0.04		
	NO <sub>x</sub> + NMHC	4.73		
	Particulate Matter (PM <sub>10</sub> )	0.029		
	Carbon Monoxide	0.12		
% O <sub>2</sub> , dry basis, if corrected to other than 15%: _____ %				
<b>Source of Data</b>	<input type="checkbox"/> Manufacturer's Specifications <input type="checkbox"/> Emissions Source Test <input type="checkbox"/> CARB/EPA Certification <input checked="" type="checkbox"/> Other <u>Existing Permit Limit</u> <b>Note: please provide copies of all sources of emissions data.</b>			

### HEALTH RISK ASSESSMENT DATA

<b>Operating Hours</b>	Maximum Operating Schedule: <u>24</u> hours per day, and <u>50</u> hours per year		
<b>Receptor Data</b>	Distance to nearest Residence	<u>3700</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	Direction to nearest Residence	<u>east</u>	Direction from the stack to the receptor, i.e. Northeast or South.
	Distance to nearest Business	<u>810</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	Direction to nearest Business	<u>north</u>	Direction from the stack to the receptor, i.e. North or Southwest.
<b>Stack Parameters</b>	Release Height	<u>6.33</u> feet above grade	
	Stack Diameter	<u>6.18</u> inches at point of release	
	Rain Cap	<input checked="" type="checkbox"/> Flapper-type <input type="checkbox"/> Fixed-type <input type="checkbox"/> None <input type="checkbox"/> Other: _____	
	Direction of Flow	<input checked="" type="checkbox"/> Vertically Upward <input type="checkbox"/> Horizontal <input type="checkbox"/> Other: _____ ° from vert. or _____ ° from horiz.	
<b>Exhaust Data</b>	Flowrate: <u>2687</u> acfm	Temperature: <u>794</u> °F	
<b>Transportable</b>	Is this engine transportable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   Note: This is used for health risk assessment purposes only.		
<b>Facility Location</b>	<input type="checkbox"/> Urban (area of dense population) <input checked="" type="checkbox"/> Rural (area of sparse population)		

# San Joaquin Valley Air Pollution Control District

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

## Permit Application For:

- AUTHORITY TO CONSTRUCT (ATC) - New Emission Unit
- AUTHORITY TO CONSTRUCT (ATC) - Modification Of Emission Unit With Valid PTO/Valid ATC
- AUTHORITY TO CONSTRUCT (ATC) - Renewal of Valid Authority to Construct
- PERMIT TO OPERATE (PTO) - Existing Emission Unit Now Requiring a Permit to Operate

1. PERMIT TO BE ISSUED TO: <b>GWF Energy LLC – GWF Tracy Combined Cycle Power Plant</b>	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>4300 Railroad Avenue</u> CITY: <u>Pittsburg</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>94565-6006</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>14950 W. Schulte Rd.</u> CITY: <u>Tracy</u> <u>SW</u> /4 SECTION <u>36</u> TOWNSHIP <u>2 south</u> RANGE <u>4 east</u>	WITHIN 1,000 FT OF A SCHOOL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO S.I.C. CODE(S) OF FACILITY (If known): <u>4911</u>
4. GENERAL NATURE OF BUSINESS: <b>Electricity Generation</b>	INSTALL DATE: <b>August 2011</b>
5. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC (If yes, please complete and attach a Compliance Certification form (TVFORM-009)? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>	
6. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) <b>Installation of an emergency diesel fired 288 horsepower internal combustion engine used to drive a fire water pump. Installation is part of the conversion from the existing simple cycle GE PG7121EA turbine configuration to a combined cycle turbine with duct burner configuration – see Section 2, Section 5.1, and Section 5.9 of the GWF Tracy Application for Certification (AFC) for project description and assessment of air quality impacts.</b>	
7. PERMIT REVIEW PERIOD: Do you request a three- or ten-day period to review the draft Authority to Construct permit? Please note that checking "YES" will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review process. <span style="float: right;"><input type="checkbox"/> 3-day review <input type="checkbox"/> 10-day review <input checked="" type="checkbox"/> No review requested</span>	
8. HAVE YOU EVER APPLIED FOR AN ATC OR PTO IN THE PAST? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If yes, ATC/PTO #: <u>N-4597</u>	<b>Optional Section</b> 11. CHECK WHETHER YOU ARE A PARTICIPANT IN EITHER OF THESE VOLUNTARY PROGRAMS: "Healthy Air Living (HAL)"  <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Send info "INSPECT"  <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Send info
9. HAVE ALL NECESSARY LAND-USE AUTHORIZATIONS BEEN OBTAINED? (If "No" is checked, please attach explanation) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
10. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION OR A NOTICE TO COMPLY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, NOV/NTC #:	
12. TYPE OR PRINT NAME OF APPLICANT: <b>Mark Kehoe</b>	TITLE OF APPLICANT: <b>Director, Environmental and Safety Projects</b>
13. SIGNATURE OF APPLICANT: 	DATE: <u>6/26/08</u>
PHONE #: (925) 431-1440 FAX #: (925) 431-0518 E-MAIL: <a href="mailto:mkehoe@gwfpower.com">mkehoe@gwfpower.com</a>	

**FOR APCD USE ONLY:**

DATE STAMP:	FILING FEE RECEIVED: \$ _____ CHECK #: _____ DATE PAID: _____ PROJECT #: _____ FACILITY ID: _____
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**San Joaquin Valley Air Pollution Control District  
Supplemental Application Form**

**Emergency/Low-Use IC Engines for Non-Agricultural Operations**

Please complete one form for each engine.

*This form must be accompanied by a completed Application for Authority to Construct and Permit to Operate form*

PERMIT TO BE ISSUED TO: GWF Energy LLC – GWF Tracy Combined Cycle Power Plant

LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: SW/4, Section 36, Township 2 south, Range 4 east

**EQUIPMENT DESCRIPTION**

<b>Engine Details</b>	Engine Manufacturer: TBD		Number of Cylinders: 6
	Engine Model: TBD		Engine Year of Manufacture: 2009 or 2010
	Engine Serial Number: TBD		Engine Tier Rating: III
	Engine Certification Family Number: TBD		
	Engine's Type of Combustion: <input type="checkbox"/> Rich-Burn <input type="checkbox"/> Lean-Burn <input checked="" type="checkbox"/> 4-Stroke <input type="checkbox"/> 2-Stroke		
	Engine Manufacturer's Maximum Rated Power Output (per the data plate): <u>288</u> bhp		
	Engine's Rated Power Output for the Process the Engine Serves: <u>288</u> bhp		
<b>Process Data</b>	Process the Engine Serves: Fire pump		
	Electrical Power Generation Only	Generator Manufacturer:	Model:
		Power Output: _____ kW	
Will this equipment be used in an electric utility rate reduction program? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Fuel Data</b>	Fuel Type: <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Gasoline <input type="checkbox"/> Other: _____		
	For "Other" fuels only: Higher Heating Value: _____ Btu/scf, or _____ Btu/gal, For "Other" fuels only: An Ultimate Fuel Analysis or the combustion F-Factor _____ dscf/MMBtu		
	Sulfur Content: _____ gr/100 scf (gaseous fuel) or <u>0.015</u> % by weight (liquid fuel)		
	Fuel Consumption at Maximum Rated Output: <u>14.5</u> gal/hr, or _____ scf/hr		
<b>Rule 4702 Type of Use</b>	<input type="checkbox"/> <b>Emergency Standby</b> - Limited exclusively to power primary mechanical or an electrical generator during periods of unscheduled power outages beyond the control of the operator, and limited from 20 to 100 hrs/yr (depending on the engine's PM <sub>10</sub> emission factor) for maintenance and testing purposes only.		
	<input type="checkbox"/> This engine is specifically used to power a pump for a municipal water supply. <ul style="list-style-type: none"> <li><input type="checkbox"/> I request the higher opacity limit of 40% with the corresponding operational limits of 30 minutes per week and 2 hours per month for maintenance and testing. (CH&amp;SC 41701.6)</li> <li><input type="checkbox"/> I request the lower opacity limit of 20%.</li> </ul> <input type="checkbox"/> This engine is specifically used to provide power at a health care facility. (CH&SC 1250) <ul style="list-style-type: none"> <li><input type="checkbox"/> This engine is subject to Office of Statewide Health Planning and Development (OSHPD) requirements.</li> </ul> <input checked="" type="checkbox"/> <b>Special Case Emergency</b> - Limited exclusively to preserve or protect property, human life, or public health during a disaster or a state emergency (e.g. fire or flood) and limited to 20 to 100 hrs/yr (depending on the engine's PM <sub>10</sub> emission factor) for maintenance and testing purposes only. <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> This engine is specifically used to power a direct-drive firewater pump.               <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> This firewater pump engine is subject to National Fire Protection Association (NFPA) requirements.</li> </ul> </li> </ul> <input type="checkbox"/> <b>Low Use</b> - Limited to ≤ 200 hrs/yr of operation for <b>ALL</b> purposes combined, including maintenance and testing.		

<b>Hour Meter</b>	Note: All engines are required to have either a nonresettable elapsed time meter or an alternate device, method, or technique, approved by the APCO, for determining elapsed operating time.	
	<input checked="" type="checkbox"/> Equipped with a Nonresettable Elapsed Operating Time Meter <input type="checkbox"/> Alternate Method (please provide details): _____	

### EMISSIONS CONTROL

<b>Emissions Control Equipment</b> (Check all that apply)	<input checked="" type="checkbox"/> Positive Crankcase Ventilation	<input checked="" type="checkbox"/> 90% Efficient crankcase emission control device
	<input checked="" type="checkbox"/> Turbocharger	<input checked="" type="checkbox"/> Intercooler/Aftercooler
	<input checked="" type="checkbox"/> Automatic Air/Fuel Ratio or O <sub>2</sub> Controller - Manufacturer: _____	
	<input type="checkbox"/> Non-Selective Catalytic Reduction: Manufacturer: _____ Model: _____	
	Control Efficiencies: NO <sub>x</sub> _____ %, SO <sub>x</sub> _____ %, PM <sub>10</sub> _____ %, CO _____ %, VOC _____ %	
	<input type="checkbox"/> Particulate Filter - Manufacturer: _____ Model: _____ Control Efficiency: _____ %	
<input type="checkbox"/> Other (please specify): _____		

### EMISSIONS DATA

Note: See District BACT and District Rule 4702 requirements for applicability to proposed engine at <a href="http://www.valleyair.org/busind/pto/bact/chapter3.pdf">http://www.valleyair.org/busind/pto/bact/chapter3.pdf</a> and <a href="http://www.valleyair.org/rules/currnrules/r4702.pdf">http://www.valleyair.org/rules/currnrules/r4702.pdf</a> .				
<b>Emissions Data</b>	<b>Pollutant</b>	<b>(g/bhp-hr)</b>	<b>(g/kW-hr)</b>	<b>(ppmvd)</b>
	Nitrogen Oxides (NO <sub>x</sub> )	2.67		
	Volatile Organic Compounds (VOC)	0.16		
	NO <sub>x</sub> + NMHC	2.83		
	Particulate Matter (PM <sub>10</sub> )	0.12		
	Carbon Monoxide	2.39		
% O <sub>2</sub> , dry basis, if corrected to other than 15%: _____ %				
<b>Source of Data</b>	<input type="checkbox"/> Manufacturer's Specifications <input type="checkbox"/> Emissions Source Test <input type="checkbox"/> CARB/EPA Certification <input checked="" type="checkbox"/> Other <u>Tier III Engine Standards</u> <b>Note: please provide copies of all sources of emissions data.</b>			

### HEALTH RISK ASSESSMENT DATA

<b>Operating Hours</b>	Maximum Operating Schedule: <u>24</u> hours per day, and <u>50</u> hours per year		
<b>Receptor Data</b>	Distance to nearest Residence	<u>3840</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	Direction to nearest Residence	<u>east</u>	Direction from the stack to the receptor, i.e. Northeast or South.
	Distance to nearest Business	<u>710</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	Direction to nearest Business	<u>north</u>	Direction from the stack to the receptor, i.e. North or Southwest.
<b>Stack Parameters</b>	Release Height	<u>12</u> feet above grade	
	Stack Diameter	<u>6.06</u> inches at point of release	
	Rain Cap	<input checked="" type="checkbox"/> Flapper-type <input type="checkbox"/> Fixed-type <input type="checkbox"/> None <input type="checkbox"/> Other: _____	
	Direction of Flow	<input checked="" type="checkbox"/> Vertically Upward <input type="checkbox"/> Horizontal <input type="checkbox"/> Other: _____ ° from vert. or _____ ° from horiz.	
<b>Exhaust Data</b>	Flowrate: <u>1632</u> acfm	Temperature: <u>952</u> °F	
<b>Transportable</b>	Is this engine transportable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   Note: This is used for health risk assessment purposes only.		
<b>Facility Location</b>	<input type="checkbox"/> Urban (area of dense population) <input checked="" type="checkbox"/> Rural (area of sparse population)		

