San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

MAY 17 2011

Mr. Andrew Robertson
Wellhead Power Gates, LLC
650 Bercut Drive, Suite C
Sacramento, CA 95814

Re: Final - Authority to Construct / Certificate of Conformity (Minor Mod)
Project # C-1110070

Dear Mr. Robertson:

The Air Pollution Control Officer has issued an Authority to Construct (C-3843-1-9) with a Certificate of Conformity to Wellhead Power Gates, LLC. The proposed modification to an existing natural gas-fired turbine is for installing a wet compression system and increasing the maximum heat input of turbine from 436 MMBtu/hr to 442 MMBtu/hr.

Enclosed is the Authority to Construct and invoice. The application and proposal were sent to US EPA Region IX on March 16, 2011. No comments were received following the District's preliminary decision on this project.

Prior to operating with modifications authorized by the Authority to Construct, you must submit an application to modify the Title V permit as an administrative amendment in accordance with District Rule 2520, Section 11.5.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner
Director of Permit Services

Enclosures
gb

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

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MAY 17 2011

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

Re: Final - Authority to Construct / Certificate of Conformity (Minor Mod)
Project # C-1110070

Dear Mr. Rios:

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AUTHORITY TO CONSTRUCT

PERMIT NO: C-3843-1-9 **ISSUANCE DATE:** 05/11/2011

LEGAL OWNER OR OPERATOR: WELLHEAD POWER GATES, LLC.
MAILING ADDRESS: 650 BERCUT DRIVE STE C
SACRAMENTO, CA 95814

LOCATION: S-29,T-20S,R-17E
HURON, CA

EQUIPMENT DESCRIPTION:
MODIFICATION OF 45.4 MW GENERAL ELECTRIC LM-6000 NATURAL GAS-FIRED SIMPLE CYCLE GAS TURBINE ENGINE WITH WATER OR STEAM INJECTION, SERVED BY SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND OXIDATION CATALYST: INSTALL A WET COMPRESSION SYSTEM AND INCREASE THE MAXIMUM HEAT INPUT OF THE TURBINE FROM 436 MMBTU/HR TO 442 MMBTU/HR

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx and O2 concentrations. The CEM shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [40 CFR 60.334(b) and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit
4. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
C-3843-1-9 : May 11 2011 10:57AM – BRARG : Joint Inspection NOT Required

5. The NOx and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(1) and, District Rule 1080, 6.3, 6.5, 6.6, & 7.2] Federally Enforceable Through Title V Permit

6. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

7. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.0; 2201 and 4703, 6.2.1 and 6.2.8] Federally Enforceable Through Title V Permit

8. Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5) and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

9. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit

10. The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081 (as amended 12/16/93). [District Rule 1081] Federally Enforceable Through Title V Permit

11. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit

12. The sulfur content of each fuel source shall be documented in a valid purchase contract, a supplier certification, a tariff sheet, or a transportation contract. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If the unit is not fired on PUC-regulated natural gas, the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01. [40 CFR 60.335(b)(10)(ii)] Federally Enforceable Through Title V Permit

14. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703, 3.23 and 5.3] Federally Enforceable Through Title V Permit

15. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26, 3.29 and 5.3] Federally Enforceable Through Title V Permit

16. Excess emissions shall be defined as any operating hour in which 4-hour rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both). [40 CFR 60.334(J)(1)(iii)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

17. The owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentration corrected to 15% O2 (dry). EPA Methods 7E or 20 shall be used for NOx emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a) and District Rule 4703, 5.1, 6.3.1 and 6.4] Federally Enforceable Through Title V Permit

18. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit

19. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2; 2201 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

20. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1 & 6.4] Federally Enforceable Through Title V Permit

21. The HHV and LHV of the gaseous fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.332(a) and (b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the Fresno County Rule 406. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

23. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 60.333 (b); 60.334 (b), (b)(1), (b)(2), (h)(3), (j)(1)(iii), and (j)(5), and 60.335(a), (b)(1), (b)(10). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

24. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.13, and District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 8.0, and 11.0; 1081(as amended 12/16/93), Sections 3.0, 6.0, 7.1, 7.2, and 7.3; and 4201 (as amended 12/17/92). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

25. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater except for up to three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit

27. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

28. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. [District Rule 1081] Federally Enforceable Through Title V Permit

29. This unit shall be fired exclusively on natural gas as defined in 40 CFR 60.331(u) which has a total sulfur content of less than or equal to 1.0 gr/100 scf. [40 CFR 60.333(b), District Rule 4201 and Fresno County Rule 406] Federally Enforceable Through Title V Permit

30. Combined annual emissions from units C-3843-1 and -4 shall not exceed any of the following limits: 19,958 lb-NOx/year, 4,409 lb-SOx/year, 10,211 lb-PM10/year, 20,731 lb-CO/year, and 4,022 lb-VOC/year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

31. Maximum annual heat input for the natural gas-fired turbine engine shall not exceed 1,547,100 MMBtu/year, bases on HHV, measured on a calendar year period. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Daily NOx emissions from the natural gas-fired turbine engine shall not exceed 136.8 lb-NOx/day, measured on a 24 hour rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit

33. Except during periods of startup and shutdown, emission rates from the natural gas-fired turbine engine shall not exceed any of the following limits: 5.7 lb-NOx/hour (as NO2) equivalent to 3.5 ppmvd @ 15% O2, 1.26 lb-SOx/hour (as SO2), 2.92 lb-PM10/hour, 5.92 lb-CO/hour equivalent to 6.0 ppmvd @ 15% O2, 1.15 lb-VOC/hour (as methane) equivalent to 2.0 ppmv @ 15% O2, or 10 ppmv ammonia @ 15% O2. All emission limits are based on one (1) hour rolling averages. [District Rules 2201, 4001, and 4703, 5.1.2 & 5.2] Federally Enforceable Through Title V Permit

34. During periods of startup and shutdown, emission rates from the natural gas-fired turbine engine shall not exceed any of the following limits: 20 lb-NOx/hour (as NO2), 1.26 lb-SOx/hour (as SO2), 2.92 lb-PM10/hour, 5.92 lb-CO/hour, or 1.15 lb-VOC/hour (as methane), based on one (1) hour averages. [District Rules 2201, 4001, and 4703, 5.3] Federally Enforceable Through Title V Permit

35. The duration of each startup or each shutdown shall not exceed two hours. [District 4703, 5.3.1.1] Federally Enforceable Through Title V Permit

36. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit

37. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = ((a-(bxc/1,000,000)) x 1,000,000/b), where a = ammonia injection rate (lb/hr)/17 (lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/29 (lb/lb. mol), and c = change in measured NOx concentration ppmv at 15% O2 across catalyst. [District Rule 4102]

38. Compliance testing to demonstrate compliance with the PM10, NOx (as NO2), VOC, CO, ammonia emission limits, and fuel gas sulfur content requirements of this permit shall be conducted at least once every twelve months. [District Rules 2201, 4001, and 4703, 6.3.1] Federally Enforceable Through Title V Permit

39. Compliance demonstration (source testing) shall be District witnessed, or authorized and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

40. The following test methods shall be used: NOx - EPA Method 7E or 20; CO - EPA Method 10 or 10B; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half); ammonia - BAAQMD ST-1B; O2 - EPA Method 3, 3A, or 20; and fuel gas sulfur content: ASTM D3246. NOx test results shall be corrected to ISO standard conditions as defined in 40 CFR 60.335. 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, 6.4; and 40 CFR 60.335(a) and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

41. The permittee shall maintain the following records: fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements and calculated NOx mass emission rates (lb/hr). [District Rules 2201 and 4703, 6.2] Federally Enforceable Through Title V Permit

42. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit

43. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit

44. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

45. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. [40 CFR 72] Federally Enforceable Through Title V Permit

46. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit

47. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit

48. The owners and operators of each source and each affected unit at the source shall: (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 73] Federally Enforceable Through Title V Permit

49. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 77] Federally Enforceable Through Title V Permit

50. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72] Federally Enforceable Through Title V Permit

51. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 73, prior to the calendar year for which the allowance was allocated. [40 CFR 73] Federally Enforceable Through Title V Permit

52. An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72] Federally Enforceable Through Title V Permit

53. An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72] Federally Enforceable Through Title V Permit

54. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77. [40 CFR 77] Federally Enforceable Through Title V Permit

55. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) Pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77. [40 CFR 77] Federally Enforceable Through Title V Permit

56. The owners and operators of the each affected unit at the source shall keep on site the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site beyond such five-year period until such documents are superceded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] Federally Enforceable Through Title V Permit

57. The owners and operators of each affected unit at the source shall keep on site each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission that demonstrates compliance with the requirements of the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

58. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 75] Federally Enforceable Through Title V Permit