San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

OCT 05 2011

Robert Howard
PG&E - Kettleman Compressor Station
P O Box 7640
San Francisco, CA 93204

Re: Notice of Minor Title V Permit Modification
District Facility # C-904
Project # 1095260

Dear Mr. Howard:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued Authorities to Construct (ATC's) C-904-27-5, '-28-5 and '-29-5 into the Title V operating permit. These ATC's authorize the modification of three 58.14 MMBtu/hr gas turbines driving natural gas pipeline compressors to install selective catalytic reduction (SCR) systems on each turbine for compliance with District Rule 4703.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued ATC's C-904-27-5, '-28-5 and '-29-5, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

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

Sincerely,

David Warner
Director of Permit Services

Enclosures

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

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

Printed on recycled paper

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

OCT 05 2011

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

Re: **Notice of Minor Title V Permit Modification**
District Facility # C-904
Project # 1095260

Dear Mr. Rios:

Enclosed for you to review is an application for minor Title V permit modification for the facility identified above. PG&E - Kettleman Compressor Station is proposing a Title V minor permit modification to incorporate recently issued Authorities to Construct (ATC's) C-904-27-5, '-28-5 and '-29-5 into the Title V operating permit. These ATC's authorize the modification of three 58.14 MMBtu/hr gas turbines driving natural gas pipeline compressors to install selective catalytic reduction (SCR) systems on each turbine for compliance with District Rule 4703.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued ATC's C-904-27-5, '-28-5 and '-29-5, application, and previous Title V permit. Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter.

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

Sincerely,

David Warner
Director of Permit Services

Enclosures

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

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

Printed on recycled paper.

TITLE V APPLICATION REVIEW

Minor Modification
Project #: 1095260

Engineer: Dustin Brown
Date: October 6, 2011

Facility Number: C-904
Facility Name: PG & E - Kettleman Compressor Station
Mailing Address: P O Box 7640
San Francisco, CA 93204

Contact Name: Robert Howard
Phone: (415) 973-4603

Responsible Official: Robert Howard
Title: Vice President, Gas Transmission and Storage

I. PROPOSAL

PG & E – Kettleman Compressor Station, herein referred to as PG & E, is proposing a Title V minor permit modification to incorporate recently issued Authorities to Construct (ATC's) C-904-27-5, '-28-5 and '-29-5 into the Title V operating permit. These ATC's authorized the modification of three 58.14 MMBtu/hr gas turbines driving natural gas pipeline compressors to install a selective catalytic reduction (SCR) system on each turbine for compliance with the Tier 3 NO_X emission requirements of District Rule 4703, "Stationary Gas Turbines".

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

II. FACILITY LOCATION

PG & E is located at 34453 Plymouth Avenue in Avenal, CA.

III. EQUIPMENT DESCRIPTIONS

C-904-27-6: 58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-1) SERVED BY A SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION, NOX AND O_2 ANALYZERS, DRIVING A NATURAL GAS PIPELINE COMPRESSOR

C-904-28-6: 58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-2) SERVED BY A SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION, NOX AND O_2 ANALYZERS, DRIVING A NATURAL GAS PIPELINE COMPRESSOR

C-904-29-6: 58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-3) SERVED BY A SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION, NOX AND O_2 ANALYZERS, DRIVING A NATURAL GAS PIPELINE COMPRESSOR

IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to a Title V permit is considered to be a minor modification and, as such, requires no public review.

V. APPLICABLE REQUIREMENTS

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

PG & E is proposing to modify three 58.14 MMBtu/hr gas turbine engines driving natural gas pipeline compressors to install a selective catalytic reduction (SCR) systems on each turbine. The installation of the SCR systems is being performed solely for compliance with the Tier 3 NO_X requirements of District Rule 4703.

No increases in criteria pollutant emissions were associated with these proposed changes.

All three of the existing permits to operate (PTO's) and the new authorities to construct (ATC's) for these turbine engines are identical. Therefore, the condition changes described below are applicable for all three turbine engines (C-904-27, '-28 and '-29).

Existing PTO Condition Changes:

Existing PTO condition 3 has been removed as the requirements of this condition are already included as condition 22 on facility wide permit C-904-0-2.

Existing PTO condition 5 has been removed as the specific requirements from 40 CFR 60, Subpart GG are already included, or have been included, in the requirements for this revised permit. Therefore, this requirement is no longer necessary.

Existing PTO condition 6 has been revised in accordance with the District NSR Rule and the emission requirements of Rule 4703 and has been included as condition 5 of the requirements for this revised permit.

Existing PTO condition 8 has been revised in accordance with the addition of ammonia slip, and the source testing requirements of Rule 4703 and 40 CFR Subpart GG, and has been included as condition 10 of the requirements for this revised permit.

Existing PTO conditions 17, 19 and 20 have been revised in accordance with the District NSR Rule and 40 CFR 60, Subpart GG and have been combined and included as condition 22 of the requirements for this revised permit.

Existing condition 21 has been revised in accordance with the monitoring requirements of Rule 4703 and 40 CFR 60, Subpart GG and has been included as condition 27 of the requirements for this revised permit.

Existing condition 23 has been revised in accordance with the recordkeeping requirements of Rule 4703 and has been included as condition 30 of the requirements for this revised permit.

New PTO Conditions:

Conditions 3, 4 and 7 of the requirements for this revised permit were added in accordance with the District NSR Rule and the startup and shutdown requirements of Rule 4703.

Condition 9 of the requirements for this revised permit was added in accordance with the District NSR rule and District Rule 4102 and to ensure continued compliance with the ammonia slip from the SCR system remains within acceptable levels.

Condition 18 of the requirements for this revised permit was added in accordance with District Rule 1081 and to ensure the appropriate test method is used when measuring ammonia slip during source testing.

Condition 25 of the requirements for this revised permit was added in accordance with the District NSR rule and District Rule 4102 and to ensure that the applicant periodically checks their ammonia slip levels to ensure that the turbine and SCR system are operating properly.

Condition 26 of the requirements for this revised permit was added in accordance with the alternate monitoring requirements of Rule 4703.

Conditions 28 and 29 of the requirements for this revised permit were added in accordance with the recordkeeping requirements of Rule 4703 and 40 CFR 60, Subpart GG.

ATC Condition Changes:

ATC condition 1 has been removed and not included in the requirements for this revised permit as PG & E has submitted the appropriate Title V applications to incorporate these ATC's in to their Title V operating permit.

ATC condition 2 has been removed and not included in the requirements for this revised permit as ATC's C-904-27-3, '-28-3 and '-29-3 have already been cancelled in the District's permit database.

ATC condition 4 has been removed as the requirements of this condition are already included as condition 22 on facility wide permit C-904-0-2.

ATC condition 30 has been removed and not included in the requirements for this revised permit as the facility already submitted the information correlating the NO_X control system operating parameters to the associated measured NO_X output. This requirements is only required during the initial startup period of the SCR system. Therefore, this condition is no longer applicable.

VII. COMPLIANCE

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include;
    a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
    b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and
3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

VIII. ATTACHMENTS

A. Proposed Modified Title V Operating Permits C-904-27-6, '-28-6 and '-29-6
B. Authorities to Construct C-904-27-5, '-28-5 and '-29-5
C. Application
D. Previous Title V Operating Permits C-904-27-1, '-28-1 and '-29-1

ATTACHMENT A

Proposed Modified Title V Operating Permits C-904-27-6, '-28-6 and '-29-6

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-904-27-6 **EXPIRATION DATE:** 11/30/2007

DRAFT

EQUIPMENT DESCRIPTION:
58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-1) SERVED BY A SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION, NOX AND O2 ANALYZERS, DRIVING A NATURAL GAS PIPELINE COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Start-up shall be defined as the period of time during which a unit is brought from a shutdown status to the unit's emission control systems to reach full operation. 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] Federally Enforceable Through Title V Permit
4. During startup and shutdown, emissions from the gas turbine shall not exceed 171 ppmvd NOx @ 15% O2 or 0.6203 lb-NOx/MMBtu. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
5. Except during periods of startup, shutdown, reduced load, bypass transition, or primary re-ignition, emission rates shall not exceed any of the following emission limits: 8 ppmv NOx (as NO2) @ 15% O2, 0.00280 lb SOx/MMBtu, 0.3 lb PM10/hr, 50 ppmv CO @ 15% O2, 25 ppmv VOC @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
6. Maximum emissions from the gas turbine, including both steady state and non-steady state periods, shall not exceed any of the following limits: 109.9 lb-NOx/day, 3.9 lb-SOx/day, 7.3 lb-PM10/day, 156.4 lb-CO/day, or 44.7 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Total duration of startup and shutdown shall not exceed two hours per day. During startup, the emissions control system shall be in operations and emissions shall be minimized insofar as technologically feasible. [District Rules 2201, and 4703] Federally Enforceable Through Title V Permit
8. Emissions shall not exceed either of the following NSPS Subpart GG limits (one hour standard): 171 ppmvd NOx (as NO2) @ 15% O2, or 150 ppmvd SOx (as SO2) @ 15% O2. [40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
9. The ammonia slip (NH3) emissions shall not exceed either of the following limits: 0.79 lb/hr or 10 ppmvd @15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Source testing to determine compliance with the NOx, CO, and ammonia (NH3) steady state emission rates (in both lb/hr and ppmvd @ 15% O2) shall be conducted at least once every 12 months. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
11. Source testing shall be by District witnessed, or authorized, sample collection by a CARB certified testing laboratory. [District Rule 1081, Section 7.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. 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. [District Rule 1081, Sections 5.0, 6.0 and 7.1] Federally Enforceable Through Title V Permit

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, Section 7.3] Federally Enforceable Through Title V Permit

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

15. NOx emissions (ppmv) shall be determined by EPA Methods 7E or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

16. CO emissions (ppmv) shall be determined by EPA Methods 10 or 10B, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

17. Oxygen content of exhaust gas shall be determined by EPA Methods 3, 3A or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

18. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

19. PM10 emissions shall be determined by EPA Methods 201A and 202 when PM10 is required by the District. Alternate test methods that are more suitable for the exhaust stack temperature may be used if such methods are approved by the District [District Rule 2201] Federally Enforceable Through Title V Permit

20. Demonstrated percent efficiency shall be determined using the procedures contained in District Rule 4703, Section 6.4.6. [District Rule 4703, Section 6.4.6] Federally Enforceable Through Title V Permit

21. Unit shall be fired exclusively on PUC-quality natural gas, with a maximum sulfur content of 1.0 gr/100 scf. [District Rules 2201, 4801 and 40 CFR 60.333] Federally Enforceable Through Title V Permit

22. The sulfur content of each fuel source shall either be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days of the end of the source test and weekly thereafter. If the sulfur content is demonstrated to be less than 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six-month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume. [District Rule 2201 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

23. Fuel sulfur content shall be determined using the following methods: ASTM D 1072, D 3031, D 4084, or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

24. The facility shall maintain the following records on a daily basis: the start time, stop time, length and reason for reduced load periods, and total hours of operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

25. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation: (ppmvd @ 15% O2) = ((a - (b x c/1,000,000)) x (1,000,000 / b)) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O2. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, ammonia (NH3), and O2 weekly. If compliance with the NOx emissions is demonstrated for eight (8) consecutive weeks, then the monitoring frequency will be reduced to monthly. If deviations are observed in two consecutive months, monitoring shall revert to weekly until 8 consecutive weeks show no deviations. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. Ammonia monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall be performed within one (1) day of restarting the unit unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the week if on a weekly monitoring schedule. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

27. The owner or operator shall operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the gas turbine, the fuel consumption, and the exhaust gas NOx and O2 concentrations. [District Rule 4703 and 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

28. The permittee shall maintain the following records: fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitoring measurements, calculated ammonia slip (lb/hr or ppmvd @ 15% O2), and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). The calculations used to determine ammonia slip and the NOx mass emission rates shall be derived during the initial source test. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

29. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing; evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 1080, 2201, and 4703 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

30. All records of required monitoring data and support information shall be maintained and retained on-site for a period of at least (5) five years and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4703] Federally Enforceable Through Title V Permit

31. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4201, Kings County Rule 404, District Rule 4801 and Kings County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-904-28-6 **EXPIRATION DATE:** 11/30/2007

DRAFT

EQUIPMENT DESCRIPTION:
58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-2) SERVED BY A SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION, NOX AND O2 ANALYZERS, DRIVING A NATURAL GAS PIPELINE COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Start-up shall be defined as the period of time during which a unit is brought from a shutdown status to the unit's emission control systems to reach full operation. 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] Federally Enforceable Through Title V Permit
4. During startup and shutdown, emissions from the gas turbine shall not exceed 171 ppmvd NOx @ 15% O2 or 0.6203 lb-NOx/MMBtu. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
5. Except during periods of startup, shutdown, reduced load, bypass transition, or primary re-ignition, emission rates shall not exceed any of the following emission limits: 8 ppmv NOx (as NO2) @ 15% O2, 0.00280 lb SOx/MMBtu, 0.3 lb PM10/hr, 50 ppmv CO @ 15% O2, 25 ppmv VOC @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
6. Maximum emissions from the gas turbine, including both steady state and non-steady state periods, shall not exceed any of the following limits: 109.9 lb-NOx/day, 3.9 lb-SOx/day, 7.3 lb-PM10/day, 156.4 lb-CO/day, or 44.7 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Total duration of startup and shutdown shall not exceed two hours per day. During startup, the emissions control system shall be in operations and emissions shall be minimized insofar as technologically feasible. [District Rules 2201, and 4703] Federally Enforceable Through Title V Permit
8. Emissions shall not exceed either of the following NSPS Subpart GG limits (one hour standard): 171 ppmvd NOx (as NO2) @ 15% O2, or 150 ppmvd SOx (as SO2) @ 15% O2. [40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
9. The ammonia slip (NH3) emissions shall not exceed either of the following limits: 0.79 lb/hr or 10 ppmvd @15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Source testing to determine compliance with the NOx, CO, and ammonia (NH3) steady state emission rates (in both lb/hr and ppmvd @ 15% O2) shall be conducted at least once every 12 months. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
11. Source testing shall be by District witnessed, or authorized, sample collection by a CARB certified testing laboratory. [District Rule 1081, Section 7.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. 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. [District Rule 1081, Sections 5.0, 6.0 and 7.1] Federally Enforceable Through Title V Permit
13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, Section 7.3] Federally Enforceable Through Title V Permit
14. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703 and 40 CFR 60.332(a),(b)] Federally Enforceable Through Title V Permit
15. NOx emissions (ppmv) shall be determined by EPA Methods 7E or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
16. CO emissions (ppmv) shall be determined by EPA Methods 10 or 10B, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
17. Oxygen content of exhaust gas shall be determined by EPA Methods 3, 3A or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
18. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
19. PM10 emissions shall be determined by EPA Methods 201A and 202 when PM10 is required by the District. Alternate test methods that are more suitable for the exhaust stack temperature may be used if such methods are approved by the District [District Rule 2201] Federally Enforceable Through Title V Permit
20. Demonstrated percent efficiency shall be determined using the procedures contained in District Rule 4703, Section 6.4.6. [District Rule 4703, Section 6.4.6] Federally Enforceable Through Title V Permit
21. Unit shall be fired exclusively on PUC-quality natural gas, with a maximum sulfur content of 1.0 gr/100 scf. [District Rules 2201, 4801 and 40 CFR 60.333] Federally Enforceable Through Title V Permit
22. The sulfur content of each fuel source shall either be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days of the end of the source test and weekly thereafter. If the sulfur content is demonstrated to be less than 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six-month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume. [District Rule 2201 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
23. Fuel sulfur content shall be determined using the following methods: ASTM D 1072, D 3031, D 4084, or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
24. The facility shall maintain the following records on a daily basis: the start time, stop time, length and reason for reduced load periods, and total hours of operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation: (ppmvd @ 15% O2) = ((a - (b x c/1,000,000)) x (1,000,000 / b)) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O2. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, ammonia (NH3), and O2 weekly. If compliance with the NOx emissions is demonstrated for eight (8) consecutive weeks, then the monitoring frequency will be reduced to monthly. If deviations are observed in two consecutive months, monitoring shall revert to weekly until 8 consecutive weeks show no deviations. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. Ammonia monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall be performed within one (1) day of restarting the unit unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the week if on a weekly monitoring schedule. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

27. The owner or operator shall operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the gas turbine, the fuel consumption, and the exhaust gas NOx and O2 concentrations. [District Rule 4703 and 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

28. The permittee shall maintain the following records: fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitoring measurements, calculated ammonia slip (lb/hr or ppmvd @ 15% O2), and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). The calculations used to determine ammonia slip and the NOx mass emission rates shall be derived during the initial source test. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

29. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing; evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 1080, 2201, and 4703 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

30. All records of required monitoring data and support information shall be maintained and retained on-site for a period of at least (5) five years and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4703] Federally Enforceable Through Title V Permit

31. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4201, Kings County Rule 404, District Rule 4801 and Kings County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-904-29-6 **EXPIRATION DATE:** 11/30/2007

DRAFT

EQUIPMENT DESCRIPTION:
58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-3) SERVED BY A SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION, NOX AND O2 ANALYZERS, DRIVING A NATURAL GAS PIPELINE COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Start-up shall be defined as the period of time during which a unit is brought from a shutdown status to the unit's emission control systems to reach full operation. 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] Federally Enforceable Through Title V Permit
4. During startup and shutdown, emissions from the gas turbine shall not exceed 171 ppmvd NOx @ 15% O2 or 0.6203 lb-NOx/MMBtu. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
5. Except during periods of startup, shutdown, reduced load, bypass transition, or primary re-ignition, emission rates shall not exceed any of the following emission limits: 8 ppmv NOx (as NO2) @ 15% O2, 0.0028 lb SOx/MMBtu, 0.3 lb PM10/hr, 50 ppmv CO @ 15% O2, 25 ppmv VOC @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
6. Maximum emissions from the gas turbine, including both steady state and non-steady state periods, shall not exceed any of the following limits: 109.9 lb-NOx/day, 3.9 lb-SOx/day, 7.3 lb-PM10/day, 156.4 lb-CO/day, or 44.7 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Total duration of startup and shutdown shall not exceed two hours per day. During startup, the emissions control system shall be in operations and emissions shall be minimized insofar as technologically feasible. [District Rules 2201, and 4703] Federally Enforceable Through Title V Permit
8. Emissions shall not exceed either of the following NSPS Subpart GG limits (one hour standard): 171 ppmvd NOx (as NO2) @ 15% O2, or 150 ppmvd SOx (as SO2) @ 15% O2. [40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
9. The ammonia slip (NH3) emissions shall not exceed either of the following limits: 0.79 lb/hr or 10 ppmvd @15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Source testing to determine compliance with the NOx, CO, and ammonia (NH3) steady state emission rates (in both lb/hr and ppmvd @ 15% O2) shall be conducted at least once every 12 months. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
11. Source testing shall be by District witnessed, or authorized, sample collection by a CARB certified testing laboratory. [District Rule 1081, Section 7.2] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. 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. [District Rule 1081, Sections 5.0, 6.0 and 7.1] Federally Enforceable Through Title V Permit
13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, Section 7.3] Federally Enforceable Through Title V Permit
14. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703 and 40 CFR 60.332(a),(b)] Federally Enforceable Through Title V Permit
15. NOx emissions (ppmv) shall be determined by EPA Methods 7E or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
16. CO emissions (ppmv) shall be determined by EPA Methods 10 or 10B, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
17. Oxygen content of exhaust gas shall be determined by EPA Methods 3, 3A or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
18. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
19. PM10 emissions shall be determined by EPA Methods 201A and 202 when PM10 is required by the District. Alternate test methods that are more suitable for the exhaust stack temperature may be used if such methods are approved by the District [District Rule 2201] Federally Enforceable Through Title V Permit
20. Demonstrated percent efficiency shall be determined using the procedures contained in District Rule 4703, Section 6.4.6. [District Rule 4703, Section 6.4.6] Federally Enforceable Through Title V Permit
21. Unit shall be fired exclusively on PUC-quality natural gas, with a maximum sulfur content of 1.0 gr/100 scf. [District Rules 2201, 4801 and 40 CFR 60.333] Federally Enforceable Through Title V Permit
22. The sulfur content of each fuel source shall either be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days of the end of the source test and weekly thereafter. If the sulfur content is demonstrated to be less than 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six-month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume. [District Rule 2201 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
23. Fuel sulfur content shall be determined using the following methods: ASTM D 1072, D 3031, D 4084, or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
24. The facility shall maintain the following records on a daily basis: the start time, stop time, length and reason for reduced load periods, and total hours of operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation: (ppmvd @ 15% O2) = ((a - (b x c/1,000,000)) x (1,000,000 / b)) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O2. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, ammonia (NH3), and O2 weekly. If compliance with the NOx emissions is demonstrated for eight (8) consecutive weeks, then the monitoring frequency will be reduced to monthly. If deviations are observed in two consecutive months, monitoring shall revert to weekly until 8 consecutive weeks show no deviations. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. Ammonia monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall be performed within one (1) day of restarting the unit unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the week if on a weekly monitoring schedule. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

27. The owner or operator shall operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the gas turbine, the fuel consumption, and the exhaust gas NOx and O2 concentrations. [District Rule 4703 and 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

28. The permittee shall maintain the following records: fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitoring measurements, calculated ammonia slip (lb/hr or ppmvd @ 15% O2), and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). The calculations used to determine ammonia slip and the NOx mass emission rates shall be derived during the initial source test. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

29. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing; evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 1080, 2201, and 4703 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

30. All records of required monitoring data and support information shall be maintained and retained on-site for a period of at least (5) five years and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4703] Federally Enforceable Through Title V Permit

31. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4201, Kings County Rule 404, District Rule 4801 and Kings County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit

DRAFT

ATTACHMENT B

Authorities to Construct
C-904-27-5, '-28-5 and '-29-5

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: C-904-27-5 **ISSUANCE DATE:** 11/16/2009

LEGAL OWNER OR OPERATOR: PG & E CO -KETTLEMEN COMPRESSOR STATION
MAILING ADDRESS: 375 N WIGET LANE, SUITE 200
WALNUT CREEK, CA 94598

LOCATION: 34453 PLYMOUTH AVE
AVENAL, CA 93204

EQUIPMENT DESCRIPTION:
MODIFICATION OF 58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-1) WITH SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, DRIVING NATURAL GAS PIPELINE COMPRESSOR: INSTALL SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND ADD ALTERNATE MONITORING SCHEME OF NOX ANALYZER AND O2 ANALYZER DOWNSTREAM OF SCR, FOR RULE 4703, TIER 3 NOX LIMIT COMPLIANCE

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Upon implementation of the modification and startup of the equipment authorized by these Authorities to Construct (ATCs), ATCs C-904-27-3, C-904-28-3, and C-904-29-3 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. Start-up shall be defined as the period of time during which a unit is brought from a shutdown status to the unit's emission control systems to reach full operation. 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] 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-904-27-5 Nov 16 2009 10:57AM – HARRISR Joint Inspection NOT Required

7. During startup and shutdown, emissions from the gas turbine shall not exceed 171 ppmvd NOx @ 15% O2 or 0.6203 lb-NOx/MMBtu. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

8. Except during periods of startup, shutdown, reduced load, bypass transition, or primary re-ignition, emission rates shall not exceed any of the following emission limits: 8 ppmv NOx (as NO2) @ 15% O2, 0.00280 lb SOx/MMBtu, 0.3 lb PM10/hr, 50 ppmv CO @ 15% O2, 25 ppmv VOC @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

9. Maximum emissions from the gas turbine, including both steady state and non-steady state periods, shall not exceed any of the following limits: 109.9 lb-NOx/day, 3.9 lb-SOx/day, 7.3 lb-PM10/day, 156.4 lb-CO/day, or 44.7 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Total duration of startup and shutdown shall not exceed two hours per day. During startup, the emissions control system shall be in operations and emissions shall be minimized insofar as technologically feasible. [District Rules 2201, and 4703] Federally Enforceable Through Title V Permit

11. Emissions shall not exceed either of the following NSPS Subpart GG limits (one hour standard): 171 ppmvd NOx (as NO2) @ 15% O2, or 150 ppmvd SOx (as SO2) @ 15% O2. [40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit

12. The ammonia slip (NH3) emissions shall not exceed either of the following limits: 0.79 lb/hr or 10 ppmvd @15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Source testing to determine compliance with the NOx, CO, and ammonia (NH3) steady state emission rates (in both lb/hr and ppmvd @ 15% O2) shall be conducted within 120 days after initial operation and at least once every 12 months thereafter. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

14. Source testing shall be by District witnessed, or authorized, sample collection by a CARB certified testing laboratory. [District Rule 1081, Section 7.2] Federally Enforceable Through Title V Permit

15. 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. [District Rule 1081, Sections 5.0, 6.0 and 7.1] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, Section 7.3] Federally Enforceable Through Title V Permit

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

18. NOx emissions (ppmv) shall be determined by EPA Methods 7E or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

19. CO emissions (ppmv) shall be determined by EPA Methods 10 or 10B, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

20. Oxygen content of exhaust gas shall be determined by EPA Methods 3, 3A or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

21. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

22. PM10 emissions shall be determined by EPA Methods 201A and 202 when PM10 is required by the District. Alternate test methods that are more suitable for the exhaust stack temperature may be used if such methods are approved by the District [District Rule 2201] Federally Enforceable Through Title V Permit

23. Demonstrated percent efficiency shall be determined using the procedures contained in District Rule 4703, Section 6.4.6. [District Rule 4703, Section 6.4.6] Federally Enforceable Through Title V Permit

24. Unit shall be fired exclusively on PUC-quality natural gas, with a maximum sulfur content of 1.0 gr/100 scf. [District Rules 2201, 4801 and 40 CFR 60.333] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

25. The sulfur content of each fuel source shall either be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days of the end of the source test and weekly thereafter. If the sulfur content is demonstrated to be less than 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six-month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume. [District Rule 2201 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

26. Fuel sulfur content shall be determined using the following methods: ASTM D 1072, D 3031, D 4084, or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

27. The facility shall maintain the following records on a daily basis: the start time, stop time, length and reason for reduced load periods, and total hours of operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

28. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation: (ppmvd @ 15% O2) = ((a - (b x c/1,000,000)) x (1,000,000 / b)) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O2. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

29. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, ammonia (NH3), and O2 weekly. If compliance with the NOx emissions is demonstrated for eight (8) consecutive weeks, then the monitoring frequency will be reduced to monthly. If deviations are observed in two consecutive months, monitoring shall revert to weekly until 8 consecutive weeks show no deviations. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. Ammonia monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall be performed within one (1) day of restarting the unit unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the week if on a weekly monitoring schedule. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

30. The owner or operator shall submit to the District, before issuance of the Permit to Operate, information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when no continuous emission monitoring data for NOx is available or when the continuous emission monitoring system is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

31. The owner or operator shall operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the gas turbine, the fuel consumption, and the exhaust gas NOx and O2 concentrations. [District Rule 4703 and 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

32. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4201, Kings County Rule 404, District Rule 4801 and Kings County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain the following records: fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitoring measurements, calculated ammonia slip (lb/hr or ppmvd @ 15% O2), and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). The calculations used to determine ammonia slip and the NOx mass emission rates shall be derived during the initial source test. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing; evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 1080, 2201, and 4703 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

35. All records of required monitoring data and support information shall be maintained and retained on-site for a period of at least (5) five years and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4703] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING

AUTHORITY TO CONSTRUCT

PERMIT NO: C-904-28-5 **ISSUANCE DATE:** 11/16/2009

LEGAL OWNER OR OPERATOR: PG & E CO -KETTLEMEN COMPRESSOR STATION
MAILING ADDRESS: 375 N WIGET LANE, SUITE 200
WALNUT CREEK, CA 94598

LOCATION: 34453 PLYMOUTH AVE
AVENAL, CA 93204

EQUIPMENT DESCRIPTION:
MODIFICATION OF 58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-2) WITH SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, DRIVING NATURAL GAS PIPELINE COMPRESSOR: INSTALL SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND ADD ALTERNATE MONITORING SCHEME OF NOX ANALYZER AND O2 ANALYZER DOWNSTREAM OF SCR, FOR RULE 4703, TIER 3 NOX LIMIT COMPLIANCE

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Upon implementation of the modification and startup of the equipment authorized by these Authorities to Construct (ATCs), ATCs C-904-27-3, C-904-28-3, and C-904-29-3 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. Start-up shall be defined as the period of time during which a unit is brought from a shutdown status to the unit's emission control systems to reach full operation. 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] 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-904-28-5 Nov 16 2009 10:57AM – HARRISR Joint Inspection NOT Required

7. During startup and shutdown, emissions from the gas turbine shall not exceed 171 ppmvd NOx @ 15% O2 or 0.6203 lb-NOx/MMBtu. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

8. Except during periods of startup, shutdown, reduced load, bypass transition, or primary re-ignition, emission rates shall not exceed any of the following emission limits: 8 ppmv NOx (as NO2) @ 15% O2, 0.00280 lb SOx/MMBtu, 0.3 lb PM10/hr, 50 ppmv CO @ 15% O2, 25 ppmv VOC @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

9. Maximum emissions from the gas turbine, including both steady state and non-steady state periods, shall not exceed any of the following limits: 109.9 lb-NOx/day, 3.9 lb-SOx/day, 7.3 lb-PM10/day, 156.4 lb-CO/day, or 44.7 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Total duration of startup and shutdown shall not exceed two hours per day. During startup, the emissions control system shall be in operations and emissions shall be minimized insofar as technologically feasible. [District Rules 2201, and 4703] Federally Enforceable Through Title V Permit

11. Emissions shall not exceed either of the following NSPS Subpart GG limits (one hour standard): 171 ppmvd NOx (as NO2) @ 15% O2, or 150 ppmvd SOx (as SO2) @ 15% O2. [40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit

12. The ammonia slip (NH3) emissions shall not exceed either of the following limits: 0.79 lb/hr or 10 ppmvd @15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Source testing to determine compliance with the NOx, CO, and ammonia (NH3) steady state emission rates (in both lb/hr and ppmvd @ 15% O2) shall be conducted within 120 days after initial operation and at least once every 12 months thereafter. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

14. Source testing shall be by District witnessed, or authorized, sample collection by a CARB certified testing laboratory. [District Rule 1081, Section 7.2] Federally Enforceable Through Title V Permit

15. 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. [District Rule 1081, Sections 5.0, 6.0 and 7.1] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, Section 7.3] Federally Enforceable Through Title V Permit

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

18. NOx emissions (ppmv) shall be determined by EPA Methods 7E or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

19. CO emissions (ppmv) shall be determined by EPA Methods 10 or 10B, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

20. Oxygen content of exhaust gas shall be determined by EPA Methods 3, 3A or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

21. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

22. PM10 emissions shall be determined by EPA Methods 201A and 202 when PM10 is required by the District. Alternate test methods that are more suitable for the exhaust stack temperature may be used if such methods are approved by the District [District Rule 2201] Federally Enforceable Through Title V Permit

23. Demonstrated percent efficiency shall be determined using the procedures contained in District Rule 4703, Section 6.4.6. [District Rule 4703, Section 6.4.6] Federally Enforceable Through Title V Permit

24. Unit shall be fired exclusively on PUC-quality natural gas, with a maximum sulfur content of 1.0 gr/100 scf. [District Rules 2201, 4801 and 40 CFR 60.333] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

25. The sulfur content of each fuel source shall either be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days of the end of the source test and weekly thereafter. If the sulfur content is demonstrated to be less than 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six-month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume. [District Rule 2201 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

26. Fuel sulfur content shall be determined using the following methods: ASTM D 1072, D 3031, D 4084, or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

27. The facility shall maintain the following records on a daily basis: the start time, stop time, length and reason for reduced load periods, and total hours of operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

28. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation: (ppmvd @ 15% O2) = ((a - (b x c/1,000,000)) x (1,000,000 / b)) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O2. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

29. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, ammonia (NH3), and O2 weekly. If compliance with the NOx emissions is demonstrated for eight (8) consecutive weeks, then the monitoring frequency will be reduced to monthly. If deviations are observed in two consecutive months, monitoring shall revert to weekly until 8 consecutive weeks show no deviations. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. Ammonia monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall be performed within one (1) day of restarting the unit unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the week if on a weekly monitoring schedule. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

30. The owner or operator shall submit to the District, before issuance of the Permit to Operate, information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when no continuous emission monitoring data for NOx is available or when the continuous emission monitoring system is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

31. The owner or operator shall operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the gas turbine, the fuel consumption, and the exhaust gas NOx and O2 concentrations. [District Rule 4703 and 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

32. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4201, Kings County Rule 404, District Rule 4801 and Kings County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain the following records: fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitoring measurements, calculated ammonia slip (lb/hr or ppmvd @ 15% O2), and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). The calculations used to determine ammonia slip and the NOx mass emission rates shall be derived during the initial source test. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing; evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 1080, 2201, and 4703 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

35. All records of required monitoring data and support information shall be maintained and retained on-site for a period of at least (5) five years and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4703] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: C-904-29-5 **ISSUANCE DATE:** 11/16/2009

LEGAL OWNER OR OPERATOR: PG & E CO -KETTLEMEN COMPRESSOR STATION
MAILING ADDRESS: 375 N WIGET LANE, SUITE 200
WALNUT CREEK, CA 94598

LOCATION: 34453 PLYMOUTH AVE
AVENAL, CA 93204

EQUIPMENT DESCRIPTION:
MODIFICATION OF 58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-3) WITH SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, DRIVING NATURAL GAS PIPELINE COMPRESSOR: INSTALL SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND ADD ALTERNATE MONITORING SCHEME OF NOX ANALYZER AND O2 ANALYZER DOWNSTREAM OF SCR, FOR RULE 4703, TIER 3 NOX LIMIT COMPLIANCE

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Upon implementation of the modification and startup of the equipment authorized by these Authorities to Construct (ATCs), ATCs C-904-27-3, C-904-28-3, and C-904-29-3 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. Start-up shall be defined as the period of time during which a unit is brought from a shutdown status to the unit's emission control systems to reach full operation. 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] 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-904-29-5 NOV 16 2009 10:57AM – HARRISR Joint Inspection NO1 Required

Printed on recycled paper.

7. During startup and shutdown, emissions from the gas turbine shall not exceed 171 ppmvd NOx @ 15% O2 or 0.6203 lb-NOx/MMBtu. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

8. Except during periods of startup, shutdown, reduced load, bypass transition, or primary re-ignition, emission rates shall not exceed any of the following emission limits: 8 ppmv NOx (as NO2) @ 15% O2, 0.0028 lb SOx/MMBtu, 0.3 lb PM10/hr, 50 ppmv CO @ 15% O2, 25 ppmv VOC @ 15% O2. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

9. Maximum emissions from the gas turbine, including both steady state and non-steady state periods, shall not exceed any of the following limits: 109.9 lb-NOx/day, 3.9 lb-SOx/day, 7.3 lb-PM10/day, 156.4 lb-CO/day, or 44.7 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Total duration of startup and shutdown shall not exceed two hours per day. During startup, the emissions control system shall be in operations and emissions shall be minimized insofar as technologically feasible. [District Rules 2201, and 4703] Federally Enforceable Through Title V Permit

11. Emissions shall not exceed either of the following NSPS Subpart GG limits (one hour standard): 171 ppmvd NOx (as NO2) @ 15% O2, or 150 ppmvd SOx (as SO2) @ 15% O2. [40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit

12. The ammonia slip (NH3) emissions shall not exceed either of the following limits: 0.79 lb/hr or 10 ppmvd @15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Source testing to determine compliance with the NOx, CO, and ammonia (NH3) steady state emission rates (in both lb/hr and ppmvd @ 15% O2) shall be conducted within 120 days after initial operation and at least once every 12 months thereafter. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

14. Source testing shall be by District witnessed, or authorized, sample collection by a CARB certified testing laboratory. [District Rule 1081, Section 7.2] Federally Enforceable Through Title V Permit

15. 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. [District Rule 1081, Sections 5.0, 6.0 and 7.1] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, Section 7.3] Federally Enforceable Through Title V Permit

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

18. NOx emissions (ppmv) shall be determined by EPA Methods 7E or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

19. CO emissions (ppmv) shall be determined by EPA Methods 10 or 10B, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

20. Oxygen content of exhaust gas shall be determined by EPA Methods 3, 3A or 20, or CARB Method 100. [District Rule 4703 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit

21. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

22. PM10 emissions shall be determined by EPA Methods 201A and 202 when PM10 is required by the District. Alternate test methods that are more suitable for the exhaust stack temperature may be used if such methods are approved by the District [District Rule 2201] Federally Enforceable Through Title V Permit

23. Demonstrated percent efficiency shall be determined using the procedures contained in District Rule 4703, Section 6.4.6. [District Rule 4703, Section 6.4.6] Federally Enforceable Through Title V Permit

24. Unit shall be fired exclusively on PUC-quality natural gas, with a maximum sulfur content of 1.0 gr/100 scf. [District Rules 2201, 4801 and 40 CFR 60.333] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

25. The sulfur content of each fuel source shall either be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days of the end of the source test and weekly thereafter. If the sulfur content is demonstrated to be less than 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six-month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume. [District Rule 2201 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

26. Fuel sulfur content shall be determined using the following methods: ASTM D 1072, D 3031, D 4084, or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit

27. The facility shall maintain the following records on a daily basis: the start time, stop time, length and reason for reduced load periods, and total hours of operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

28. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation: (ppmvd @ 15% O2) = ((a - (b x c/1,000,000)) x (1,000,000 / b)) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 15% O2. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

29. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, ammonia (NH3), and O2 weekly. If compliance with the NOx emissions is demonstrated for eight (8) consecutive weeks, then the monitoring frequency will be reduced to monthly. If deviations are observed in two consecutive months, monitoring shall revert to weekly until 8 consecutive weeks show no deviations. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. Ammonia monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall be performed within one (1) day of restarting the unit unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the week if on a weekly monitoring schedule. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

30. The owner or operator shall submit to the District, before issuance of the Permit to Operate, information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when no continuous emission monitoring data for NOx is available or when the continuous emission monitoring system is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

31. The owner or operator shall operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the gas turbine, the fuel consumption, and the exhaust gas NOx and O2 concentrations. [District Rule 4703 and 40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

32. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4201, Kings County Rule 404, District Rule 4801 and Kings County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit

33. The permittee shall maintain the following records: fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitoring measurements, calculated ammonia slip (lb/hr or ppmvd @ 15% O2), and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). The calculations used to determine ammonia slip and the NOx mass emission rates shall be derived during the initial source test. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing; evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 1080, 2201, and 4703 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

35. All records of required monitoring data and support information shall be maintained and retained on-site for a period of at least (5) five years and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4703] Federally Enforceable Through Title V Permit

ATTACHMENT C

Application

San Joaquin Valley Air Pollution Control District

www.valleyair.org

Permit Application For:

RECEIVED
NOV 24 2009
Permits Srvc
SJVAPCD

[ ] ADMINISTRATIVE AMENDMENT [x] MINOR MODIFICATION [ ] SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: Pacific Gas and Electric Company – Kettleman Compressor Station

2. MAILING ADDRESS:

STREET/P.O. BOX: PG&E Environmental Services, Attn: Air Quality Permits, PO Box 7640

CITY: San Francisco STATE: CA 9-DIGIT ZIP CODE: 94120

3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:

STREET: 34453 Plymouth Avenue CITY: Avenal

_____ ¼ SECTION _____ TOWNSHIP _____ RANGE _____

INSTALLATION DATE: 2001

4. GENERAL NATURE OF BUSINESS:

Natural gas transmission and storage

5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE
(include Permit #'s if known, and use additional sheets if necessary)

Include Authorities to Construct C-904-27-5, C-904-28-5, and C-904-29-5 into the Title V permit. These ATCs authorize PG&E to install Selective Catalytic Reduction (SCR) Systems on the three natural gas turbines located at the site. The SCR systems will reduce the NOx emissions to the levels which will soon be required by District Rule 4703, Stationary Gas Turbines.

6. TYPE OR PRINT NAME OF APPLICANT: Robert T. Howard

TITLE OF APPLICANT: VP, Gas Transmission & Storage

7. SIGNATURE OF APPLICANT: Robert T. Howard DATE: 11/20/09

PHONE: (415) 973-4603
FAX: (415) 973-1300
EMAIL: RTHc@pge.com

For APCD Use Only:

DATE STAMP	*FILING FEE RECEIVED:* $ Ø *CHECK#:* _____
	DATE PAID: _____
	PROJECT NO: C-1095260 *FACILITY ID:* C-904

San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

[ ] SIGNIFICANT PERMIT MODIFICATION
[x] MINOR PERMIT MODIFICATION
[ ] ADMINISTRATIVE AMENDMENT

COMPANY NAME: Pacific Gas & Electric Company – Kettleman Compressor Station	FACILITY ID: C- 904
1. Type of Organization: [ ] Corporation [ ] Sole Ownership [ ] Government [ ] Partnership [x] Utility	
2. Owner's Name: Pacific Gas and Electric Company	
3. Agent to the Owner:	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial **all** circles for confirmation):

(RH) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).

(RH) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.

(RH) Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.

(RH) Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

Signature of Responsible Official

11-20-09
Date

Robert T. Howard
Name of Responsible Official (please print)

VP, Gas Transmission & Storage
Title of Responsible Official (please print)

ATTACHMENT D

Previous Title V Operating Permits
C-904-27-1, '-28-1 and '-29-1

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-904-27-1 **EXPIRATION DATE:** 11/30/2007

EQUIPMENT DESCRIPTION:
58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-1) WITH SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, DRIVING NATURAL GAS PIPELINE COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. Unit shall be fired exclusively on PUC-quality natural gas, with a maximum sulfur content of 1.0 gr/100 scf. [40 CFR 60.333 and District NSR Rule] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. Permittee shall satisfy all applicable requirements of District Rule 4001, New Source Performance Standards - Subpart GG, including all notification and reporting requirements. [60 CFR 60.330, et al, and District Rule 4001] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed any of the following emission limits: 25 ppmv NOx (as NO2) @ 15% O2, 0.00280 lb SOx/MMBtu, 0.3 lb PM10/hr, 50 ppmv CO @ 15% O2, 25 ppmv VOC @ 15% O2. [District NSR Rule and District Rule 4703, 7.3.2] Federally Enforceable Through Title V Permit
7. Emissions shall not exceed either of the following NSPS Subpart GG limits (one hour standard): 171 ppmvd NOx (as NO2) @ 15% O2, or 150 ppmvd SOx (as SO2) @ 15% O2. [40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
8. Source testing to determine NOx and CO emissions, and the demonstrated percent efficiency, shall be conducted not less than once every 12 months. [District Rule 4703 Section 6.3] Federally Enforceable Through Title V Permit
9. Source testing shall be by District witnessed, or authorized, sample collection by a CARB certified testing laboratory. [District Rule 1081, Section 7.2] Federally Enforceable Through Title V Permit
10. 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. [District Rule 1081, Sections 5.0, 6.0 and 7.1] Federally Enforceable Through Title V Permit
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, Section 7.3] Federally Enforceable Through Title V Permit
12. NOx emissions (ppmv) shall be determined by EPA Methods 7E or 20, or CARB Method 100. [District Rule 4703, Section 6.4.1] Federally Enforceable Through Title V Permit
13. CO emissions (ppmv) shall be determined by EPA Methods 10 or 10B, or CARB Method 100. [District Rule 4703, Section 6.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Oxygen content of exhaust gas shall be determined by EPA Methods 3, 3A or 20, or CARB Method 100. [District Rule 4703, Section 6.4.3] Federally Enforceable Through Title V Permit
15. Demonstrated percent efficiency shall be determined using the procedures contained in District Rule 4703, Section 6.4.6. [District Rule 4703, Section 6.4.6] Federally Enforceable Through Title V Permit
16. PM10 emissions shall be determined by EPA Methods 201A and 202. Alternate test methods that are more suitable for the exhaust stack temperature may be used if such methods are approved by the District. [District NSR Rule] Federally Enforceable Through Title V Permit
17. SOx emissions shall be determined by fuel gas sulfur content analysis at the time of source testing. Sulfur testing is not required for natural gas from a PUC regulated utility. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Fuel sulfur content shall be determined using the following methods: ASTM D 1072, D 3031, D 4084, or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
19. If the turbine is not fired on a PUC-regulated fuel, then the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
20. If the turbine is fired on PUC-regulated fuel, then maintain on file copies of fuel bills or equivalent documentation. [District Rule 2520, Section 9.4.2] Federally Enforceable Through Title V Permit
21. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, Section 6.2.1] Federally Enforceable Through Title V Permit
22. Operator shall maintain a stationary gas turbine 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 and quantity of fuel used. [District Rule 4703, Section 6.2.4]
23. Operator shall maintain all records of required monitoring data and support information for inspection at any time, for a period of at least five years. [District Rule 2520, Section 9.4.2] Federally Enforceable Through Title V Permit
24. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4201, Kings County Rule 404, District Rule 4801 and Kings County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-904-28-1 **EXPIRATION DATE:** 11/30/2007

EQUIPMENT DESCRIPTION:
58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-2) WITH SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, DRIVING NATURAL GAS PIPELINE COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. Unit shall be fired exclusively on PUC-quality natural gas, with a maximum sulfur content of 1.0 gr/100 scf. [40 CFR 60.333 and District NSR Rule] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. Permittee shall satisfy all applicable requirements of District Rule 4001, New Source Performance Standards - Subpart GG, including all notification and reporting requirements. [60 CFR 60.330, et al, and District Rule 4001] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed any of the following emission limits: 25 ppmv NOx (as NO2) @ 15% O2, 0.00280 lb SOx/MMBtu, 0.3 lb PM10/hr, 50 ppmv CO @ 15% O2, 25 ppmv VOC @ 15% O2. [District NSR Rule and District Rule 4703, 7.3.2] Federally Enforceable Through Title V Permit
7. Emissions shall not exceed either of the following NSPS Subpart GG limits (one hour standard): 171 ppmvd NOx (as NO2) @ 15% O2, or 150 ppmvd SOx (as SO2) @ 15% O2. [40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
8. Source testing to determine NOx and CO emissions, and the demonstrated percent efficiency, shall be conducted not less than once every 12 months. [District Rule 4703 Section 6.3] Federally Enforceable Through Title V Permit
9. Source testing shall be by District witnessed, or authorized, sample collection by a CARB certified testing laboratory. [District Rule 1081, Section 7.2] Federally Enforceable Through Title V Permit
10. 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. [District Rule 1081, Sections 5.0, 6.0 and 7.1] Federally Enforceable Through Title V Permit
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, Section 7.3] Federally Enforceable Through Title V Permit
12. NOx emissions (ppmv) shall be determined by EPA Methods 7E or 20, or CARB Method 100. [District Rule 4703, Section 6.4.1] Federally Enforceable Through Title V Permit
13. CO emissions (ppmv) shall be determined by EPA Methods 10 or 10B, or CARB Method 100. [District Rule 4703, Section 6.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Oxygen content of exhaust gas shall be determined by EPA Methods 3, 3A or 20, or CARB Method 100. [District Rule 4703, Section 6.4.3] Federally Enforceable Through Title V Permit
15. Demonstrated percent efficiency shall be determined using the procedures contained in District Rule 4703, Section 6.4.6. [District Rule 4703, Section 6.4.6] Federally Enforceable Through Title V Permit
16. PM10 emissions shall be determined by EPA Methods 201A and 202. Alternate test methods that are more suitable for the exhaust stack temperature may be used if such methods are approved by the District. [District NSR Rule] Federally Enforceable Through Title V Permit
17. SOx emissions shall be determined by fuel gas sulfur content analysis at the time of source testing. Sulfur testing is not required for natural gas from a PUC regulated utility. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Fuel sulfur content shall be determined using the following methods: ASTM D 1072, D 3031, D 4084, or D 3246. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
19. If the turbine is not fired on a PUC-regulated fuel, then the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
20. If the turbine is fired on PUC-regulated fuel, then maintain on file copies of fuel bills or equivalent documentation. [District Rule 2520, Section 9.4.2] Federally Enforceable Through Title V Permit
21. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, Section 6.2.1] Federally Enforceable Through Title V Permit
22. Operator shall maintain a stationary gas turbine 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 and quantity of fuel used. [District Rule 4703, Section 6.2.4]
23. Operator shall maintain all records of required monitoring data and support information for inspection at any time, for a period of at least five years. [District Rule 2520, Section 9.4.2] Federally Enforceable Through Title V Permit
24. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4201, Kings County Rule 404, District Rule 4801 and Kings County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-904-29-1 **EXPIRATION DATE:** 11/30/2007

EQUIPMENT DESCRIPTION:
58.14 MMBTU/HR (7,170 HP) SOLAR SOLONOX TAURUS 60-7032S GAS TURBINE ENGINE (K-3) WITH SOLONOX DRY LOW-NOX COMBUSTION SYSTEM, DRIVING NATURAL GAS PIPELINE COMPRESSOR

PERMIT UNIT REQUIREMENTS

1. Unit shall be fired exclusively on PUC-quality natural gas, with a maximum sulfur content of 1.0 gr/100 scf. [40 CFR 60.333 and District NSR Rule] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. Permittee shall satisfy all applicable requirements of District Rule 4001, New Source Performance Standards - Subpart GG, including all notification and reporting requirements. [60 CFR 60.330, et al, and District Rule 4001] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed any of the following emission limits: 25 ppmv NOx (as NO2) @ 15% O2, 0.00280 lb SOx/MMBtu, 0.3 lb PM10/hr, 50 ppmv CO @ 15% O2, 25 ppmv VOC @ 15% O2. [District NSR Rule and District Rule 4703, 7.3.2] Federally Enforceable Through Title V Permit
7. Emissions shall not exceed either of the following NSPS Subpart GG limits (one hour standard): 171 ppmvd NOx (as NO2) @ 15% O2, or 150 ppmvd SOx (as SO2) @ 15% O2. [40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
8. Source testing to determine NOx and CO emissions, and the demonstrated percent efficiency, shall be conducted not less than once every 12 months. [District Rule 4703 Section 6.3] Federally Enforceable Through Title V Permit
9. Compliance source testing shall be by District witnessed, or authorized, sample collection by CARB certified testing laboratory. [District Rule 1081, Section 7.2] Federally Enforceable Through Title V Permit
10. 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. [District Rule 1081, Sections 5.0, 6.0 and 7.1] Federally Enforceable Through Title V Permit
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, Section 7.3] Federally Enforceable Through Title V Permit
12. NOx emissions (ppmv) shall be determined by EPA Methods 7E or 20, or CARB Method 100. [District Rule 4703, Section 6.4.1] Federally Enforceable Through Title V Permit
13. CO emissions (ppmv) shall be determined by EPA Methods 10 or 10B, or CARB Method 100. [District Rule 4703, Section 6.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Oxygen content of exhaust gas shall be determined by EPA Methods 3, 3A or 20, or CARB Method 100. [District Rule 4703, Section 6.4.3] Federally Enforceable Through Title V Permit
15. Demonstrated percent efficiency shall be determined using the procedures contained in District Rule 4703, Section 6.4.6. [District Rule 4703, Section 6.4.6] Federally Enforceable Through Title V Permit
16. PM10 emissions shall be determined by EPA Methods 201A and 202. Alternate test methods that are more suitable for the exhaust stack temperature may be used if such methods are approved by the District. [District NSR Rule] Federally Enforceable Through Title V Permit
17. SOx emissions shall be determined by fuel gas sulfur content analysis at the time of source testing. Sulfur testing is not required for natural gas from a PUC regulated utility. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Fuel sulfur content shall be determined using the following methods: ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81. [40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
19. If the turbine is not fired on a PUC-regulated fuel, then the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit
20. If the turbine is fired on PUC-regulated fuel, then maintain on file copies of fuel bills or equivalent documentation. [District Rule 2520, Section 9.4.2] Federally Enforceable Through Title V Permit
21. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, Section 6.2.1] Federally Enforceable Through Title V Permit
22. Operator shall maintain a stationary gas turbine 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 and quantity of fuel used. [District Rule 4703, Section 6.2.4]
23. Operator shall maintain all records of required monitoring data and support information for inspection at any time, for a period of at least five years. [District Rule 2520, Section 9.4.2] Federally Enforceable Through Title V Permit
24. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4201, Kings County Rule 404, District Rule 4801 and Kings County Rule 407. A permit shield is granted from these requirements. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit