



JAN 25 2016

Mr. Ray Arthur
Fresno/Clovis Regional WWTP
5607 W Jensen Ave
Fresno, CA 93706-9458

**Re: Notice of Minor Title V Permit Modification
District Facility # C-535
Project # C-1160020**

Dear Mr. Arthur:

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 C-535-18-16 (under project C-1152971) into the Title V operating permit. ATC C-535-18-16 was issued to designate the digester and natural gas fired turbine as a dormant emissions unit.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued C-535-18-16, emission increases, 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.

If you have any questions, please contact Mr. Errol Villegas, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

Errol Villegas
for Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email

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

TITLE V APPLICATION REVIEW

Minor Modification
Project #: C-1160020

Engineer: Andrea Ogden
Date: January 11, 2016

Facility Number: C-535
Facility Name: Fresno-Clovis Regional Wastewater Reclamation Facility
Mailing Address: 5607 W Jensen Ave
Fresno, CA 93706

Contact Name: Ray Arthur
Phone: (559) 621-5266

Responsible Official: Timothy Tompsett
Title: Maintenance Supervisor

I. PROPOSAL

Fresno-Clovis Regional Wastewater Reclamation Facility is proposing a Title V minor permit modification to incorporate recently issued C-535-18-16 (under project C-1152971) into the Title V operating permit. ATC C-535-18-16 was issued to designate the digester and natural gas fired turbine as a dormant emissions unit.

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

5607 W Jensen Ave
Fresno, CA 93706

III. EQUIPMENT DESCRIPTION

C-535-18-19: 3.377 MW ALLISON MODEL 501 KB-5 DIGESTER/NATURAL GAS-FIRED TURBINE GENERATOR #1 WITH WATER INJECTION AND SELECTIVE CATALYTIC REDUCTION WITH AMMONIA INJECTION, HEAT RECOVERY STEAM GENERATOR, A 2.25 MW STEAM TURBINE SHARED

WITH C-535-19, AND A PREDICTIVE EMISSION MONITORING SYSTEM
(PEMS)

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

Fresno-Clovis Regional Wastewater Reclamation Facility is proposing to designate the turbine as a dormant emissions unit. The fuel line to the turbine will be disconnected while the unit is designated as dormant.

The following modifications were made to the operating permit for this unit.

Permit conditions 1 through 6 on the proposed Permit to Operate were added to specify the requirements for compliance with regard to the dormant status of the unit.

Condition 1 on ATC S-535-18-16 was not included on the proposed Permit to Operate because the requirement has been satisfied and the condition is not applicable to an operating permit.

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 Permit
- B. Authority to Construct
- C. Emissions Increases
- D. Application
- E. Previous Title V Operating Permit

ATTACHMENT A

Proposed Modified Title V Operating Permit

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-535-18-17

EXPIRATION DATE: 01/31/2016

EQUIPMENT DESCRIPTION:

3.377 MW ALLISON MODEL 501 KB-5 DIGESTER/NATURAL GAS-FIRED TURBINE GENERATOR #1 WITH WATER INJECTION AND SELECTIVE CATALYTIC REDUCTION WITH AMMONIA INJECTION, HEAT RECOVERY STEAM GENERATOR, A 2.25 MW STEAM TURBINE SHARED WITH C-535-19, AND A PREDICTIVE EMISSION MONITORING SYSTEM (PEMS)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. {4562} Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. {4560} While dormant, normal source testing shall not be required. [District Rule 2080]
4. {4563} Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. {4564} Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. {4565} Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. The gas-fired turbines shall be fired on natural gas or digester gas or any combination (blend) of natural gas and digester gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The total sulfur content of the natural gas combusted by this unit shall not exceed 1.0 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The H₂S content of the digester gas combusted by this unit shall not exceed 200 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: the fuel consumption and the ratio of water to fuel being fired in the turbine. [40 CFR 60.334(a)] Federally Enforceable Through Title V Permit
13. During periods of start-up or shutdown, turbine exhaust emission rates shall not exceed any of the following limits: NO_x (as NO₂) - 5.74 lb/hr, SO_x - 2.07 lb/hr, PM₁₀ 1.34 lb/hr, CO - 27.95 lb/hr, or VOC - 0.02 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

14. Emission rates from this unit, except during start-up and shutdown, shall not exceed any of the following limits: NOx (as NO₂) - 0.95 lb/hr and 5 ppmvd @ 15% O₂; SOx (as SO₂) - 2.07 lb/hr; PM₁₀ - 1.34 lb/hr; CO - 27.95 lb/hr and 188.0 ppmvd @ 15% O₂; or VOC (as methane) - 0.02 lb/hr. [District Rules 2201 and 4703, 40 CFR 60.332(a)(2) and 40 CFR 60.333(a) & (b)] Federally Enforceable Through Title V Permit
15. Emissions from this unit (including emissions during start-up and shutdown), shall not exceed any of the following limits: NOx (as NO₂) - 51.5 lb/day; SOx (as SO₂) - 49.7 lb/day; PM₁₀ - 32.2 lb/day; CO - 670.8 lb/day; or VOC - 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Emissions from this unit (including emissions during start-up and shutdown), shall not exceed any of the following limits: NOx (as NO₂) - 9,299 lb/year; SOx (as SO₂) - 18,141 lb/year; PM₁₀ - 11,753 lb/year; CO - 244,842 lb/year; or VOC - 183 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Ammonia (NH₃) emissions shall not exceed either of the following limits: 1.37 lb/hr or 10 ppmvd @ 15% O₂ (based on a 24 hour rolling average). [District Rule 2201] Federally Enforceable Through Title V Permit
18. 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: $(\text{ppmvd @ 15\% O}_2) = ((a - (b \times c / 1,000,000)) \times (1,000,000 / b)) \times d$, where a = average 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; 4.) The permittee may utilize draeger tubes to measure the ammonia in the exhaust stack. If this option is chosen, the permittee shall monitor and record the stack concentration weekly using a portable emissions monitor that meets District specifications. If compliance with the ammonia emissions is demonstrated for eight 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 eight 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. Monitoring shall be performed within one 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 Rule 2201] Federally Enforceable Through Title V Permit
19. The duration of each startup or shutdown event shall not exceed two hours. Start-up and shutdown emissions shall be counted toward all applicable emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
20. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
21. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
22. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB policy document titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
23. Source testing to measure the NOx, CO, and NH₃ emission rates (lb/hr and ppmvd @ 15% O₂) shall be conducted at least once every twelve months. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The following test methods shall be used: NO_x - EPA Method 7E or 20 or ARB Method 100, CO - EPA Method 10 or 10B or ARB Method 100, O₂ - EPA Method 3, 3A, or 20 or ARB Method 100, and ammonia - BAAQMD Method ST-1B. NO_x test results shall be corrected to ISO standard conditions as defined in 40 CFR Part 60 Subpart GG Section 60.335. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4703 and 40 CFR 60.335] Federally Enforceable Through Title V Permit
26. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703] Federally Enforceable Through Title V Permit
27. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
28. When the unit is fired solely on PUC-regulated natural gas, maintain on file copies of the natural gas bills. [District Rule 2520 and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
29. When the unit is not fired solely on PUC-regulated natural gas, the sulfur content of the fuel shall be tested weekly except that if compliance with the fuel sulfur content limit in this permit has been demonstrated for 8 consecutive weeks, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content limit in this permit, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520 and 40 CFR 60.334(i)(3)] Federally Enforceable Through Title V Permit
30. When the unit is not fired solely on PUC-regulated natural gas, the sulfur content of the fuel being fired in the turbine shall be determined using ASTM method D-1072, D-4084, D-3246 or D-4810. [District Rule 1081 and 40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
31. When the unit is not fired solely on PUC-regulated natural gas, the operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the turbine exceeds 0.8% by weight. [40 CFR 60.334(j)] Federally Enforceable Through Title V Permit
32. The owner or operator shall install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously monitors and records the exhaust gas NO_x, CO and O₂ concentrations. Predictive emissions monitor(s) shall be capable of monitoring emissions during normal operating conditions, and during startups and shutdowns provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this permit. [District Rules 1080, 2201, and 4703 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
33. Operation and calibration of the PEMS equipment shall be performed in accordance with the requirements of 40 CFR, Part 60, Appendix B, Performance Specification 16. [District Rule 1080] Federally Enforceable Through Title V Permit
34. The PEMS sensor evaluation system shall check the integrity of each input at least once per day. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner/operator shall perform a relative accuracy test audit (RATA) for the NO_x, CO and O₂ PEMS at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the predictive emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix B, Performance Specification 16. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

36. The owner/operator shall perform a relative accuracy audit (RAA) of the PEMS at least once each calendar quarter, except during quarters in which a RATA is performed, in accordance with EPA guidelines. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
37. If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, the permittee may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs as specified in Section 9.3 of EPA Performance Specification 16. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, the operator must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA. [District Rule 1080] Federally Enforceable Through Title V Permit
38. Results of continuous emissions monitoring equipment shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
39. The facility shall maintain equipment, facilities, and systems compatible with the District's continuous emission monitor data polling software system and shall make PEMS data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
40. Upon notice by the District that the facility's PEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the PEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
41. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080] Federally Enforceable Through Title V Permit
42. The owner or operator shall submit a written report of PEMS operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period and used to determine compliance with an emissions standard; Applicable time and date of each period during which the PEMS was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
43. When the turbine is operating and it is determined that the predictive emission monitoring system (PEMS) for NOx and CO is not operating properly, the permittee shall notify the District of the breakdown condition in accordance with Rule 1100 (Equipment Breakdown). During the breakdown period, the facility shall demonstrate emissions compliance by monitoring and recording hourly NOx and CO concentrations utilizing a portable analyzer that meets District specifications. The facility shall operate the portable analyzer providing data to the District for a maximum of 96 hours per breakdown occurrence. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
44. Portable analyzer readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

45. If the NO_x and/or CO concentrations, as measured by the permittee with a portable analyzer, exceed the permitted emission limits, the permittee shall notify the District and return the NO_x and CO concentrations to the permitted emission limits as soon as possible but no longer than eight (8) hours after detection. If the permittee's portable analyzer readings continue to exceed the permitted emissions limits after eight (8) hours, the permittee shall notify the District within the following one (1) hour, and conduct a certified source test within 60 days to demonstrate compliance with the permitted emissions limits. In lieu of conducting a source test, the permittee may stipulate that a violation has occurred, subject to enforcement action. The permittee must correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
46. 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, type and quantity of fuel used. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
47. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any PEM system that has been installed pursuant to District Rule 1080, and emission measurements. [District Rules 1080 and 4703 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit
48. Records shall be maintained on the quality and accuracy of all instruments to verify compliance. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit
49. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT

ATTACHMENT B

Authority to Construct



AUTHORITY TO CONSTRUCT

PERMIT NO: C-535-18-16

ISSUANCE DATE: 01/06/2016

LEGAL OWNER OR OPERATOR: FRESNO/CLOVIS REGIONAL WWTP
MAILING ADDRESS: 5607 W JENSEN AVE
FRESNO, CA 93706-9458

LOCATION: 5607 W JENSEN AVE
FRESNO, CA 93706

EQUIPMENT DESCRIPTION:

MODIFICATION OF 3.377 MW ALLISON MODEL 501 KB-5 DIGESTER/NATURAL GAS-FIRED TURBINE GENERATOR #1 WITH WATER INJECTION AND SELECTIVE CATALYTIC REDUCTION WITH AMMONIA INJECTION, HEAT RECOVERY STEAM GENERATOR, A 2.25 MW STEAM TURBINE SHARED WITH C-535-19, AND A PREDICTIVE EMISSION MONITORING SYSTEM (PEMS): DESIGNATE AS A DORMANT EMISSIONS UNIT

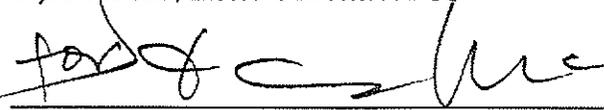
CONDITIONS

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. While dormant, the fuel line shall be physically disconnected from the unit. (Adjust as necessary) [District Rule 2080]
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
4. While dormant, normal source testing shall not be required. [District Rule 2080]
5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] 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 / APCD



Arnaud Marjoilet, Director of Permit Services

C-535-18-16 Jan 6 2016 10 59AM - OGDENA Joint Inspection NOT Required

9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. The gas-fired turbines shall be fired on natural gas or digester gas or any combination (blend) of natural gas and digester gas. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The total sulfur content of the natural gas combusted by this unit shall not exceed 1.0 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The H₂S content of the digester gas combusted by this unit shall not exceed 200 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: the fuel consumption and the ratio of water to fuel being fired in the turbine. [40 CFR 60.334(a)] Federally Enforceable Through Title V Permit
14. During periods of start-up or shutdown, turbine exhaust emission rates shall not exceed any of the following limits: NO_x (as NO₂) - 5.74 lb/hr, SO_x - 2.07 lb/hr, PM₁₀ 1.34 lb/hr, CO - 27.95 lb/hr, or VOC - 0.02 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Emission rates from this unit, except during start-up and shutdown, shall not exceed any of the following limits: NO_x (as NO₂) - 0.95 lb/hr and 5 ppmvd @ 15% O₂; SO_x (as SO₂) - 2.07 lb/hr; PM₁₀ - 1.34 lb/hr; CO - 27.95 lb/hr and 188.0 ppmvd @ 15% O₂; or VOC (as methane) - 0.02 lb/hr. [District Rules 2201 and 4703, 40 CFR 60.332(a)(2) and 40 CFR 60.333(a) & (b)] Federally Enforceable Through Title V Permit
16. Emissions from this unit (including emissions during start-up and shutdown), shall not exceed any of the following limits: NO_x (as NO₂) - 51.5 lb/day; SO_x (as SO₂) - 49.7 lb/day; PM₁₀ - 32.2 lb/day; CO - 670.8 lb/day; or VOC - 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Emissions from this unit (including emissions during start-up and shutdown), shall not exceed any of the following limits: NO_x (as NO₂) - 9,299 lb/year; SO_x (as SO₂) - 18,141 lb/year; PM₁₀ - 11,753 lb/year; CO - 244,842 lb/year; or VOC - 183 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Ammonia (NH₃) emissions shall not exceed either of the following limits: 1.37 lb/hr or 10 ppmvd @ 15% O₂ (based on a 24 hour rolling average). [District Rule 2201] Federally Enforceable Through Title V Permit
19. 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: $(\text{ppmvd @ 15\% O}_2) = ((a - (b \times c / 1,000,000)) \times (1,000,000 / b)) \times d$, where a = average ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NO_x 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; 4.) The permittee may utilize draeger tubes to measure the ammonia in the exhaust stack. If this option is chosen, the permittee shall monitor and record the stack concentration weekly using a portable emissions monitor that meets District specifications. If compliance with the ammonia emissions is demonstrated for eight 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 eight 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. Monitoring shall be performed within one 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 Rule 2201] Federally Enforceable Through Title V Permit
20. The duration of each startup or shutdown event shall not exceed two hours. Start-up and shutdown emissions shall be counted toward all applicable emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
22. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
23. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB policy document titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
24. Source testing to measure the NOx, CO, and NH3 emission rates (lb/hr and ppmvd @ 15% O2) shall be conducted at least once every twelve months. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NOx - EPA Method 7E or 20 or ARB Method 100, CO - EPA Method 10 or 10B or ARB Method 100, O2 - EPA Method 3, 3A, or 20 or ARB Method 100, and ammonia - BAAQMD Method ST-1B. NOx test results shall be corrected to ISO standard conditions as defined in 40 CFR Part 60 Subpart GG Section 60.335. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4703 and 40 CFR 60.335] Federally Enforceable Through Title V Permit
27. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703] Federally Enforceable Through Title V Permit
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
29. When the unit is fired solely on PUC-regulated natural gas, maintain on file copies of the natural gas bills. [District Rule 2520 and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
30. When the unit is not fired solely on PUC-regulated natural gas, the sulfur content of the fuel shall be tested weekly except that if compliance with the fuel sulfur content limit in this permit has been demonstrated for 8 consecutive weeks, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content limit in this permit, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520 and 40 CFR 60.334(i)(3)] Federally Enforceable Through Title V Permit
31. When the unit is not fired solely on PUC-regulated natural gas, the sulfur content of the fuel being fired in the turbine shall be determined using ASTM method D-1072, D-4084, D-3246 or D-4810. [District Rule 1081 and 40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
32. When the unit is not fired solely on PUC-regulated natural gas, the operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the turbine exceeds 0.8% by weight. [40 CFR 60.334(j)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

33. The owner or operator shall install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously monitors and records the exhaust gas NO_x, CO and O₂ concentrations. Predictive emissions monitor(s) shall be capable of monitoring emissions during normal operating conditions, and during startups and shutdowns provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this permit. [District Rules 1080, 2201, and 4703 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
34. Operation and calibration of the PEMS equipment shall be performed in accordance with the requirements of 40 CFR, Part 60, Appendix B, Performance Specification 16. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The PEMS sensor evaluation system shall check the integrity of each input at least once per day. [District Rule 1080] Federally Enforceable Through Title V Permit
36. The owner/operator shall perform a relative accuracy test audit (RATA) for the NO_x, CO and O₂ PEMS at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the predictive emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix B, Performance Specification 16. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The owner/operator shall perform a relative accuracy audit (RAA) of the PEMS at least once each calendar quarter, except during quarters in which a RATA is performed, in accordance with EPA guidelines. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
38. If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, the permittee may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs as specified in Section 9.3 of EPA Performance Specification 16. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, the operator must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA. [District Rule 1080] Federally Enforceable Through Title V Permit
39. Results of continuous emissions monitoring equipment shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
40. The facility shall maintain equipment, facilities, and systems compatible with the District's continuous emission monitor data polling software system and shall make PEMS data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
41. Upon notice by the District that the facility's PEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the PEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
42. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080] Federally Enforceable Through Title V Permit
43. The owner or operator shall submit a written report of PEMS operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period and used to determine compliance with an emissions standard; Applicable time and date of each period during which the PEMS was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

44. When the turbine is operating and it is determined that the predictive emission monitoring system (PEMS) for NOx and CO is not operating properly, the permittee shall notify the District of the breakdown condition in accordance with Rule 1100 (Equipment Breakdown). During the breakdown period, the facility shall demonstrate emissions compliance by monitoring and recording hourly NOx and CO concentrations utilizing a portable analyzer that meets District specifications. The facility shall operate the portable analyzer providing data to the District for a maximum of 96 hours per breakdown occurrence. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
45. Portable analyzer readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
46. If the NOx and/or CO concentrations, as measured by the permittee with a portable analyzer, exceed the permitted emission limits, the permittee shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than eight (8) hours after detection. If the permittee's portable analyzer readings continue to exceed the permitted emissions limits after eight (8) hours, the permittee shall notify the District within the following one (1) hour, and conduct a certified source test within 60 days to demonstrate compliance with the permitted emissions limits. In lieu of conducting a source test, the permittee may stipulate that a violation has occurred, subject to enforcement action. The permittee must correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
47. 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, type and quantity of fuel used. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
48. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any PEM system that has been installed pursuant to District Rule 1080, and emission measurements. [District Rules 1080 and 4703 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit
49. Records shall be maintained on the quality and accuracy of all instruments to verify compliance. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit
50. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

ATTACHMENT C

Emissions Increases

	SSIPE (lb/yr)				
	NOx	VOC	CO	SOx	PM10
C-535-18-17	0	0	0	0	0
TOTAL	0	0	0	0	0

ATTACHMENT D

Application



San Joaquin Valley Air Pollution Control District

www.valleyair.org

RECEIVED
HEALTHY AIR LIVING
JAN 07 2016

Permit Application For:

Permits Services
SJVAPCD

ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: FRESNO-CLOVIS REGIONAL WASTEWATER RECLAMATION FACILITY	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>5607 W. Jensen Ave.</u>	
CITY: <u>Fresno</u> STATE: <u>CA</u>	9-DIGIT ZIP CODE: <u>93706-9458</u>
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>5607 W. Jensen Ave.</u> CITY: <u>Fresno</u> NW <u>1/4</u> SECTION <u>Fresno</u> TOWNSHIP <u>14 S</u> RANGE <u>19 East</u>	INSTALLATION DATE:
4. GENERAL NATURE OF BUSINESS: Wastewater Management	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) C-535-18-15 Turbine. ATC request to provide option to designate unit at Dormant Emissions Unit (DEU)	
6. TYPE OR PRINT NAME OF APPLICANT: Ray Arthur	TITLE OF APPLICANT: Project Manager – Air Resources
7. SIGNATURE OF APPLICANT: 	DATE: 1.6.16 PHONE: (559) 621-5266 FAX: (559) 498-1700 EMAIL: ray.arthur@fresno.gov

For APCD Use Only:

DATE STAMP	FILING FEE RECEIVED: \$ _____ CHECK#: _____
	DATE PAID: _____
	PROJECT NO: <u>C-1160020</u> FACILITY ID: <u>C-535</u>



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 ADMINISTRATIVE
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: FRESNO-CLOVIS REGIONAL WASTEWATER RECLAMATION FACILITY	FACILITY ID: C - 535
1. Type of Organization: <input type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input checked="" type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: City of Fresno	
3. Agent to the Owner:	

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

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

Timothy Tompsett
Signature of Responsible Official

1.6.16
Date

Timothy Tompsett
Name of Responsible Official (please print)

Maintenance Supervisor
Title of Responsible Official (please print)

ATTACHMENT E

Previous Title V Operating Permit

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-535-18-14

EXPIRATION DATE: 01/31/2016

EQUIPMENT DESCRIPTION:

3.377 MW ALLISON MODEL 501 KB-5 DIGESTER/NATURAL GAS-FIRED TURBINE GENERATOR #1 WITH WATER INJECTION AND SELECTIVE CATALYTIC REDUCTION WITH AMMONIA INJECTION, HEAT RECOVERY STEAM GENERATOR, A 2.25 MW STEAM TURBINE SHARED WITH C-535-19, AND A PREDICTIVE EMISSION MONITORING SYSTEM (PEMS)

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The gas-fired turbines shall be fired on natural gas or digester gas or any combination (blend) of natural gas and digester gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The total sulfur content of the natural gas combusted by this unit shall not exceed 1.0 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The H2S content of the digester gas combusted by this unit shall not exceed 200 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: the fuel consumption and the ratio of water to fuel being fired in the turbine. [40 CFR 60.334(a)] Federally Enforceable Through Title V Permit
7. During periods of start-up or shutdown, turbine exhaust emission rates shall not exceed any of the following limits: NOx (as NO2) - 5.74 lb/hr, SOx - 2.07 lb/hr, PM10 1.34 lb/hr, CO - 27.95 lb/hr, or VOC - 0.02 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates from this unit, except during start-up and shutdown, shall not exceed any of the following limits: NOx (as NO2) - 0.95 lb/hr and 5 ppmvd @ 15% O2; SOx (as SO2) - 2.07 lb/hr; PM10 - 1.34 lb/hr; CO - 27.95 lb/hr and 188.0 ppmvd @ 15% O2; or VOC (as methane) - 0.02 lb/hr. [District Rules 2201 and 4703, 40 CFR 60.332(a)(2) and 40 CFR 60.333(a) & (b)] Federally Enforceable Through Title V Permit
9. Emissions from this unit (including emissions during start-up and shutdown), shall not exceed any of the following limits: NOx (as NO2) - 51.5 lb/day; SOx (as SO2) - 49.7 lb/day; PM10 - 32.2 lb/day; CO - 670.8 lb/day; or VOC - 0.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Emissions from this unit (including emissions during start-up and shutdown), shall not exceed any of the following limits: NOx (as NO2) - 9,299 lb/year; SOx (as SO2) - 18,141 lb/year; PM10 - 11,753 lb/year; CO - 244,842 lb/year; or VOC - 183 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Ammonia (NH3) emissions shall not exceed either of the following limits: 1.37 lb/hr or 10 ppmvd @ 15% O2 (based on a 24 hour rolling average). [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. 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: $(\text{ppmvd @ 15\% O}_2) = ((a - (b \times c / 1,000,000)) \times (1,000,000 / b)) \times d$, where a = average ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NO_x 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; 4.) The permittee may utilize draeger tubes to measure the ammonia in the exhaust stack. If this option is chosen, the permittee shall monitor and record the stack concentration weekly using a portable emissions monitor that meets District specifications. If compliance with the ammonia emissions is demonstrated for eight 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 eight 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. Monitoring shall be performed within one 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 Rule 2201] Federally Enforceable Through Title V Permit
13. The duration of each startup or shutdown event shall not exceed two hours. Start-up and shutdown emissions shall be counted toward all applicable emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
14. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
16. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB policy document titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
17. Source testing to measure the NO_x, CO, and NH₃ emission rates (lb/hr and ppmvd @ 15% O₂) shall be conducted at least once every twelve months. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
18. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The following test methods shall be used: NO_x - EPA Method 7E or 20 or ARB Method 100, CO - EPA Method 10 or 10B or ARB Method 100, O₂ - EPA Method 3, 3A, or 20 or ARB Method 100, and ammonia - BAAQMD Method ST-1B. NO_x test results shall be corrected to ISO standard conditions as defined in 40 CFR Part 60 Subpart GG Section 60.335. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081 and 4703 and 40 CFR 60.335] Federally Enforceable Through Title V Permit
20. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
22. When the unit is fired solely on PUC-regulated natural gas, maintain on file copies of the natural gas bills. [District Rule 2520 and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
23. When the unit is not fired solely on PUC-regulated natural gas, the sulfur content of the fuel shall be tested weekly except that if compliance with the fuel sulfur content limit in this permit has been demonstrated for 8 consecutive weeks, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content limit in this permit, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520 and 40 CFR 60.334(i)(3)] Federally Enforceable Through Title V Permit
24. When the unit is not fired solely on PUC-regulated natural gas, the sulfur content of the fuel being fired in the turbine shall be determined using ASTM method D-1072, D-4084, D-3246 or D-4810. [District Rule 1081 and 40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
25. When the unit is not fired solely on PUC-regulated natural gas, the operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the turbine exceeds 0.8% by weight. [40 CFR 60.334(j)] Federally Enforceable Through Title V Permit
26. The owner or operator shall install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously monitors and records the exhaust gas NO_x, CO and O₂ concentrations. Predictive emissions monitor(s) shall be capable of monitoring emissions during normal operating conditions, and during startups and shutdowns provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this permit. [District Rules 1080, 2201, and 4703 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
27. Operation and calibration of the PEMS equipment shall be performed in accordance with the requirements of 40 CFR, Part 60, Appendix B, Performance Specification 16. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The PEMS sensor evaluation system shall check the integrity of each input at least once per day. [District Rule 1080] Federally Enforceable Through Title V Permit
29. The owner/operator shall perform a relative accuracy test audit (RATA) for the NO_x, CO and O₂ PEMS at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the predictive emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix B, Performance Specification 16. [District Rule 1080] Federally Enforceable Through Title V Permit
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31. If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, the permittee may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs as specified in Section 9.3 of EPA Performance Specification 16. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, the operator must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA. [District Rule 1080] Federally Enforceable Through Title V Permit
32. Results of continuous emissions monitoring equipment shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

33. The facility shall maintain equipment, facilities, and systems compatible with the District's continuous emission monitor data polling software system and shall make PEMS data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
34. Upon notice by the District that the facility's PEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the PEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080] Federally Enforceable Through Title V Permit
36. The owner or operator shall submit a written report of PEMS operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period and used to determine compliance with an emissions standard; Applicable time and date of each period during which the PEMS was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
37. When the turbine is operating and it is determined that the predictive emission monitoring system (PEMS) for NO_x and CO is not operating properly, the permittee shall notify the District of the breakdown condition in accordance with Rule 1100 (Equipment Breakdown). During the breakdown period, the facility shall demonstrate emissions compliance by monitoring and recording hourly NO_x and CO concentrations utilizing a portable analyzer that meets District specifications. The facility shall operate the portable analyzer providing data to the District for a maximum of 96 hours per breakdown occurrence. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
38. Portable analyzer readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
39. If the NO_x and/or CO concentrations, as measured by the permittee with a portable analyzer, exceed the permitted emission limits, the permittee shall notify the District and return the NO_x and CO concentrations to the permitted emission limits as soon as possible but no longer than eight (8) hours after detection. If the permittee's portable analyzer readings continue to exceed the permitted emissions limits after eight (8) hours, the permittee shall notify the District within the following one (1) hour, and conduct a certified source test within 60 days to demonstrate compliance with the permitted emissions limits. In lieu of conducting a source test, the permittee may stipulate that a violation has occurred, subject to enforcement action. The permittee must correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
40. 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, type and quantity of fuel used. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
41. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any PEM system that has been installed pursuant to District Rule 1080, and emission measurements. [District Rules 1080 and 4703 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

42. Records shall be maintained on the quality and accuracy of all instruments to verify compliance. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit
43. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

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