

US EPA ARCHIVE DOCUMENT

**PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
FOR GREENHOUSE GAS EMISSIONS
ISSUED PURSUANT TO THE REQUIREMENTS AT 40 CFR § 52.21**

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 6

PSD PERMIT NUMBER: PSD-TX-1358-GHG

PERMITTEE: Golden Spread Electric Cooperative, Inc.
P.O. Box 9898
Amarillo, TX 79105

FACILITY NAME: Antelope Elk Energy Center

FACILITY LOCATION: 1454 CR 315
Abernathy, TX 79311

Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, Part C (42 U.S.C. § 7470, *et seq.*), and the Code of Federal Regulations (CFR) Title 40, Section 52.21, and the Federal Implementation Plan at 40 CFR § 52.2305 (effective May 1, 2011 and published at 76 FR 25178), the U.S. Environmental Protection Agency, Region 6 is issuing a *Prevention of Significant Deterioration* (PSD) permit to Golden Spread Electric Cooperative, Inc. for Greenhouse Gas (GHG) emissions from its proposed Antelope Elk Energy Center. The permit applies to the addition of one natural gas-fired simple-cycle combustion turbine, a diesel-fired emergency generator, a natural gas-fired fuel gas heater, circuit breakers and fugitive emissions at an existing facility located near Abernathy, Texas.

Golden Spread Electric Cooperative is authorized to construct one new natural gas-fired simple cycle combustion turbine, a diesel-fired emergency generator, a natural gas-fired fuel gas heater, circuit breakers and fugitive emissions as described herein, in accordance with the permit application (and plans submitted with the permit application), the federal PSD regulations at 40 CFR § 52.21, and other terms and conditions set forth in this PSD permit in conjunction with the corresponding Texas Commission on Environmental Quality (TCEQ) permit No. PSDTX1358. Failure to comply with any condition or term set forth in this PSD permit may result in enforcement action pursuant to Section 113 of the CAA. This PSD permit does not relieve Golden Spread Electric Cooperative of the responsibility to comply with any other applicable provisions of the CAA (including applicable implementing regulations in 40 CFR Parts 51, 52, 60, 61, 72 through 75, and 98) or other federal and state requirements (including the state PSD program that remains under approval at 40 CFR § 52.2303).

In accordance with 40 CFR § 124.15(b), this PSD permit becomes effective 30 days after the service of notice of this final decision unless review is requested on the permit pursuant to 40 CFR § 124.19.

Wren Stenger, Director
Multimedia Planning and Permitting Division

Date

**Antelope Elk Energy Center (PSD-TX-1358-GHG)
Prevention of Significant Deterioration Permit
For Greenhouse Gas Emissions
Draft Permit Conditions**

PROJECT DESCRIPTION

Golden Spread Electric Cooperative, Inc. (GSEC) is proposing to add one new natural gas-fired simple cycle combustion turbine with 202 MW gross electric generating capability (maximum production capacity) to its existing 168 MW electric generating station, Antelope Elk Energy Center. In addition to the turbine, the project also includes the installation of an emergency diesel-fired generator, a gas-fired fuel gas heater, circuit breakers and fugitive emissions associated with the proposed project to meet peak and intermediate load requirements.

EQUIPMENT LIST

The following devices are subject to this GHG PSD permit:

FIN	EPN	Description
TURB1	TURB1	One 202 (maximum gross) MW natural gas-fired simple cycle GE 7F 5-Series Combustion Turbine Generator.
EMERGEN	EMEGEN	One diesel-fired generator (not to exceed 1,656 kW). In addition to emergency operations, the unit is limited to 100 hrs per 12-month rolling basis for non-emergency operations.
NGHEATR-2	NGHEATR-2	One natural gas-fired fuel gas heater (5.5 million BTU (HHV)/hr fired capacity).
SF6-FUG	SF6-FUG	Fugitive SF ₆ circuit breaker emissions.
NG-FUG	NG-FUG	Fugitive emissions from various natural gas piping components.

I. GENERAL PERMIT CONDITIONS

A. PERMIT EXPIRATION

As provided in 40 CFR § 52.21(r), this PSD permit shall become invalid if construction:

1. is not commenced (as defined in 40 CFR § 52.21(b)(9)) within 18 months after the approval takes effect; or
2. is discontinued for a period of 18 months or more; or
3. is not completed within a reasonable time.

Pursuant to 40 CFR § 52.21(r), EPA may extend the 18-month period upon a written satisfactory showing that an extension is justified.

B. PERMIT NOTIFICATION REQUIREMENTS

Permittee shall notify EPA Region 6 in writing or by electronic mail of the:

1. date construction is commenced, postmarked within 30 days of such date;
2. actual date of initial startup, as defined in 40 CFR § 60.2, postmarked within 15 days of such date; and
3. date upon which initial performance tests will commence, in accordance with the provisions of Section V, postmarked not less than 30 days prior to such date. Notification may be provided with the submittal of the performance test protocol required pursuant to Condition V.B.

C. FACILITY OPERATION

At all times, including periods of startup, shutdown, and maintenance, Permittee shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to EPA, which may include, but is not limited to, monitoring results, review of operating maintenance procedures and inspection of the facility.

D. MALFUNCTION REPORTING

1. Permittee shall notify EPA by mail, or other means identified by EPA, within 48 hours following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in GHG emissions above the allowable emission limits stated in Section II and III of this permit.
2. Within 10 days of the discovery of any GHG emissions above the allowable emission limits resulting from malfunctions as described in I.D.1., Permittee shall provide a written supplement to the initial notification that includes a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in Section II and III, and the methods utilized to mitigate emissions and restore normal operations.
3. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or any law or regulation such malfunction may cause.

E. RIGHT OF ENTRY

EPA authorized representatives, upon the presentation of credentials, shall be permitted:

1. to enter the premises where the facility is located or where any records are

2. required to be kept under the terms and conditions of this PSD Permit; during normal business hours, to have access to and to copy any records required to be kept under the terms and conditions of this PSD Permit;
3. to inspect any equipment, operation, or method subject to requirements in this PSD Permit; and
4. to sample materials and emissions from the source(s).

F. TRANSFER OF OWNERSHIP

In the event of any changes in control or ownership of the facilities to be constructed, this PSD permit shall be binding on all subsequent owners and operators. Permittee shall notify the succeeding owner and operator of the existence of the PSD permit and its conditions by letter; a copy of the letter shall be forwarded to EPA Region 6 within 30 days of the letter signature.

G. SEVERABILITY

The provisions of this PSD permit are severable and, if any provision of the PSD permit is held invalid, the remainder of this PSD permit shall not be affected.

H. ADHERENCE TO APPLICATION AND COMPLIANCE WITH OTHER ENVIRONMENTAL LAWS

Permittee shall construct this project in compliance with this PSD permit, the application on which this permit is based and all other applicable federal, state, and local air quality regulations. This PSD permit does not release the Permittee from any liability for compliance with other applicable federal, state and local environmental laws and regulations, including the Clean Air Act.

I. ACRONYMS AND ABBREVIATIONS

AVO	Auditory, Visual, and Olfactory
BACT	Best Available Control Technology
CAA	Clean Air Act
CCS	Carbon Capture and Sequestration
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CH ₄	Methane
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry Standard Cubic Foot
EF	Emission Factor
EPN	Emission Point Number
FIN	Facility Identification Number
FR	Federal Register
GCV	Gross Calorific Value
GHG	Greenhouse Gas
gr	Grains

GWP	Global Warming Potential
HHV	High Heating Value
hr	Hour
lb	Pound
LDAR	Leak Detection and Repair
MMBtu	Million British Thermal Units
MSS	Maintenance, Start-up and Shutdown
N ₂ O	Nitrous Oxides
NSPS	New Source Performance Standards
PSD	Prevention of Significant Deterioration
QA/QC	Quality Assurance and/or Quality Control
SCFH	Standard Cubic Feet per Hour
SCR	Selective Catalytic Reduction
SF ₆	Sulfur hexafluoride
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TPY	Tons per Year
USC	United States Code

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II. ANNUAL EMISSION LIMITS

Table 1. Annual Emission Limits

FIN	EPN	Description	GHG Mass Basis		TPY CO ₂ e ^{1,2}	BACT Requirements
				TPY ¹		
TURB1	TURB1	Natural Gas Fired-Simple Cycle Turbine	CO ₂	532,007.00	539,094	- BACT limit of 1,304 lb CO ₂ /MW-hr (gross) on a 4,572 rolling operational hour average basis. -Not to exceed 4,572 hours of operation (including startups and shutdowns) on a 12-month rolling total basis. -See permit condition III.A.2 and 4.
			CH ₄	125.00		
			N ₂ O	13.30		
EMERGEN	EMERGEN	Emergency Diesel Generator	CO ₂	128.00	128	- Not to exceed 100 hours of non-emergency operation on a 12-month rolling total basis - Use of Good Combustion Practices. See permit condition III.B.
			CH ₄	0.01		
			N ₂ O	No Numerical Limit Established ³		
NGHEATR-2	NGHEATR-2	Natural Gas Fired Fuel Gas Heater	CO ₂	1479.00	1488	- Not to exceed 4,572 hours of operation on a 12-month rolling total basis - Use of Good Combustion Practices. See permit condition III.C.
			CH ₄	0.03		
			N ₂ O	0.03		
SF6-FUG	SF6-FUG	Fugitive SF ₆ Circuit Breaker Emissions	SF ₆	No Numerical Limit Established ⁴	No Numerical Limit Established ⁴	Work Practices. See permit condition III.D.
NG-FUG	NG-FUG	Components Fugitive Leak Emissions	CH ₄	No Numerical Limit Established ⁴	No Numerical Limit Established ⁴	Implementation of AVO Program. See permit condition III.E.
Totals⁵			CO ₂	533,614.00	540,978	
			CH ₄	129.10		
			N ₂ O	13.33		
			SF ₆	0.01		

1. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations and include MSS activities.
2. Global Warming Potentials (GWP): CO₂=1, CH₄ = 25, N₂O = 298, SF₆=22,800
3. No numerical limit established because emissions are 0.01 tons/yr or less.
4. Fugitive leak emissions from SF₆-FUG and NG-FUG are estimated to be 0.0073 TPY SF₆ and 166.44 TPY CO₂e from SF₆-FUG, and 0.079 TPY CO₂, 4.07 TPY CH₄, and 101.83 TPY CO₂e from NG-FUG. In lieu of an emission limit, the emissions will be limited by implementing a design/work practice standard as specified in the permit.
5. Total emissions include the PTE for fugitive emissions. Totals are given for informational purposes only and do not constitute emission limits.

III. SPECIAL PERMIT CONDITIONS

A. Requirements for the Natural Gas-Fired Simple Cycle Turbine (EPN TURB1)

1. **Fuel Specifications:** The fuel for the turbine shall be pipeline quality natural gas.
2. **Turbine BACT Requirements:**
 - a. The BACT limit of 1,304 lbs of CO₂/MW-hr gross output is based on a 4,572 rolling operational hour average basis, calculated daily using equations for CO₂ provided in 40 CFR Part 75, Appendix G, Procedure 2.3 or the CO₂ emissions CEMS data 40 CFR Part 75, Appendix F. The Permittee shall calculate each day a combustion turbine operates, CO₂ emissions over the rolling 4,572 hours of operation basis divided by gross electrical output over the same period for comparison to the limit for the combustion turbine.
 - b. The Permittee shall calculate, on a daily basis, the amount of CO₂e emitted from the turbine in tons per year based on the calculation of the CO₂ and the procedures and Global Warming Potentials (GWP) contained in the Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1 for CH₄ and N₂O. Compliance shall be based on a 12-month rolling total basis.
 - c. The total quantity of fuel used by the turbine shall not exceed 8,873,053 MM Btu (HHV) in any 12-month rolling total basis, including fuel used during startup and shutdown. For each day the combustion turbine operates, the Permittee shall calculate the quantity of fuel used over the trailing 12-month rolling basis by multiplying the gross calorific value (GCV) of the fuel combusted by volume of fuel metered for comparison to the annual fuel limit.
 - d. The turbine is limited to 4,572 operational hours on a 12-month rolling total basis.
3. **Turbine Work Practice and Operational Requirements:**
 - a. The Permittee shall determine the pounds of CO₂ emitted hourly from the turbine using equation G-4 of 40 CFR Part 75, Appendix G and the hourly average heat rate using on the heat input calculation procedures contained in 40 CFR Part 75, Appendix F, equation F-20. The CO₂ emission factor used in the Appendix G calculation procedure may be the generic factor provided in equation G-4 or a factor based on fuel composition and GCV measurements according to 40 CFR Part 75, Appendix F, equation F-7b.
 - b. The Permittee shall install, calibrate, and operate a fuel flow meter that is providing fuel to the combustion turbine. Permittee shall perform monthly fuel sampling and analysis to determine GCV. Permittee shall meet all applicable requirements, including certification testing as specified in 40 CFR Part 75, Appendix D and 40 CFR Part 60 to be used in conjunction with the F_c factor based on the procedures to calculate the CO₂ emission rate in 40 CFR Part 75, Appendix F.
 - c. As an alternative to Special Condition III.A.2.a, the Permittee may install a CO₂ CEMS and the CEMS shall include an automated data acquisition and handling system for measuring and recording CO₂ emissions

discharged to the atmosphere for all operating hours, including startup and shutdown. The measurement of CO₂ shall be used to show compliance with the emission limit in Table 1.

- d. The Permittee shall ensure that all required CO₂ monitoring systems/equipment are installed and all certification tests are completed on or before the earlier of 90 unit operating days or 180 calendar days after the date the unit commences operation.
- e. The Permittee shall maintain the following records for at least five years from the date of origin:
 - i. One-hour CO₂ emission averages.
 - ii. The results of all calibration and linearity checks, as applicable.
 - iii. Relative Accuracy Test Audit (RATA) test plans and reports of test results, as applicable.
- f. The Permittee shall ensure compliance with the applicable specifications and test procedures for a CO₂ emission measurement system at stationary sources in 40 CFR Part 75.
- g. The Permittee shall calculate the pounds of CH₄ and N₂O emitted each calendar day by using either the emission factors used in the permit application or the default CH₄ and N₂O emission factors contained in Table C-2 of 40 CFR Part 98 and the measured actual hourly heat input (HHV). These daily emission determinations shall be rolled into 4,572 rolling operational hour average totals to determine compliance with the limits in Table 1 and 2.
- h. For the turbine, fuel metering shall include:
 - i. Measurement and recording of the natural gas flow rate using an operational non-resettable elapsed flow meter installed at the turbine inlet.
 - ii. Recording the total amount of fuel combusted for the turbine on an hourly basis.
 - iii. The fuel GCV, high heat value (HHV), carbon content, and, if applicable, molecular weight of the fuels shall be determined monthly according to the procedures contained in 40 CFR § 98.34(b)(3). Records of the fuel GCV shall be maintained for a minimum period of five years. Upon request, the Permittee shall provide a sample and/or analysis of the fuel that is fired at the time of the request, or shall allow a sample to be taken by EPA for analysis.
- i. Permittee shall calibrate and perform preventative maintenance checks of the fuel gas flow meters and document annually.
- j. The gross energy output (MWh, gross) for the turbine shall be measured and recorded on an hourly basis.
- k. Permittee shall substitute data per the Missing Data Substitution Procedures specified under 40 CFR Part 75, Subpart D.

4. **Startup and Shutdown Requirements for Turbine:**

- a. Permittee shall minimize emissions during startup and shutdown activities by operating and maintaining the facility and associated air pollution

control equipment in accordance with good air pollution control practices, safe operating practices, and protection of the facility.

- i. A startup of the turbine is defined as the period that begins when fuel flow is initiated in the combustion turbine as indicated by flame detection and ends when the normal operating low-NOx combustion mode is achieved. A startup time is limited to a maximum of 30 minutes.
 - ii. A shutdown of the turbine is defined as the time period that begins when the combustion turbine drops out of the normal operating low-NOx combustion mode following an instruction to shut down, and ends when a flame is no longer detected in the combustion turbine combustor. A shutdown event will also end if the combustion turbine is instructed to return to normal operating low-NOx combustion operating mode and subsequently achieves normal operating low-NOx combustion mode. A shutdown is limited to a maximum of 24 minutes.
- b. Emissions during each startup and shutdown activity as well as annual startup and shutdown activities shall be minimized by limiting the duration of operation in startup and shutdown mode as follows:
- i. Startups and shutdowns are limited to no more than the limits stated in paragraph a.
 - ii. No more than 635 startup events and 635 shutdown events on a 12-month rolling total basis.

B. Requirements for the Emergency Diesel Generator (EPN: EMERGEN)

1. **Fuel Specification:** The fuel for the emergency generator is limited to ultra-low sulfur diesel (ULSD) fuel.
2. **Emergency Diesel Generator Work Practice and Operational Requirements:**
 - a. The emergency diesel generator shall not exceed 100 hours of non-emergency operation on a 12-month rolling basis and shall be operated and maintained in accordance with the manufacturer's recommendations.
 - b. The Permittee shall install and maintain an operational non-resettable elapse time meter for the emergency diesel generator.
 - c. The Permittee shall install and maintain a non-resettable elapsed fuel flow meter for the emergency diesel generator.
 - d. The emergency diesel generator shall meet the applicable requirements of 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Combustion Engines.
 - e. The Permittee shall calculate annual CO₂ and CH₄ emissions using the emission factors used in the permit application on a calendar year basis. These emissions data and the GWP contained in the Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1 for CH₄ shall be used to calculate CO₂e emissions on a calendar year basis.

C. Requirements for the Natural Gas-Fired Fuel Gas Heater (EPN: NGHEATR-2)

1. **Fuel Specification:** The fuel for the fuel gas heater shall be pipeline quality natural gas.
2. **Fuel Gas Heater Work Practice and Operational Requirements:**
 - a. The fuel gas heater shall not exceed 4,572 hours of operation on a 12-month rolling basis and shall be operated and maintained in accordance with the manufacturer's recommendations.
 - b. The Permittee shall install and maintain an operational non-resettable elapse time meter for the fuel gas heater.
 - c. The Permittee shall install and maintain a non-resettable elapsed fuel flow meter for the fuel gas heater.
 - d. The Permittee shall calculate annual CO₂, CH₄, and N₂O emissions using the emission factors used in the permit application on a calendar year basis. These emissions data and the GWP contained in the Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1 for CH₄ and N₂O shall be used to calculate CO₂e emissions on a calendar year basis.

D. Requirements for the SF₆ Circuit Breaker Fugitive Emissions (EPN: SF6-FUG)

Fugitive SF₆ Circuit Breaker Work Practice and Operation Requirements:

1. For EPN SF6-FUG, SF₆ emissions shall be calculated annually (calendar year) in accordance with the mass balance approach provided in equation DD-1 of the Mandatory Greenhouse Gas Reporting Rule for Electrical Transmission and Distribution Equipment Use, 40 CFR Part 98, Subpart DD. The total SF₆ inventory of the circuit breakers shall not exceed 2,920 lb with leak detection.
2. The circuit breakers shall be equipped with a low pressure alarm and low pressure lockout.
3. Permittee shall maintain a file of all records, data measurements, reports and documents related to the fugitive emission sources including, but not limited to, the following: all records or reports pertaining to maintenance performed, all records relating to compliance with the Monitoring and Quality Assurance and Quality Control (QA/QC) procedures outlined in 40 CFR § 98.304.

E. Requirements for the Natural Gas Piping Components Fugitive Emissions (EPN: NG-FUG)

Components Fugitive Leaks Work Practice and Operation Requirements:

1. The Permittee shall implement an auditory/visual/olfactory (AVO) monitoring program for detecting leaking in natural gas piping components, including valves and flanges.
2. AVO monitoring shall be performed weekly.
3. Any component found to be leaking shall be tagged and repaired within 15 days, if possible.

4. Records of the weekly AVO monitoring results and tagging and repair of leaking components shall be maintained on site.

IV. RECORDKEEPING AND REPORTING

A. Records

1. In order to demonstrate compliance with the GHG emission limits in Table 1, the permittee shall monitor the following parameters and summarize the data as specified in Special Conditions III. A, B, C, D, and E.
 - a. Operating hours for all air emission sources authorized by this permit;
 - b. Records of the fuel consumed by each source authorized by this permit;
 - c. Records of run time meter and fuel flow meter measurements for the emergency diesel generator and fuel gas heater. A computer that collects, sums, and stores electronic data from continuous fuel flow meters is an acceptable totalizer; and
 - d. Semi-annual fuel sampling for natural gas or other frequencies as allowed by 40 CFR § 98.34(b)(3).
2. Permittee shall maintain records of the following for GHG emissions from the Equipment List: all records or reports pertaining to significant maintenance performed; duration of startups and shutdowns; the initial startup period for the emission units; malfunctions; all records relating to performance tests, calibrations, checks, and monitoring of combustion equipment; duration of an inoperative monitoring device and emission units with the required corresponding emission data; and all other information required by this permit recorded in a permanent form suitable for inspection. These records may be maintained in electronic databases. The records shall be retained for not less than five years following the date of such measurements, maintenance, reports, and/or records.
3. Permittee shall maintain records of all GHG emission units and CO₂ emission tests and monitoring and compliance information required by this permit.
4. Permittee shall maintain reports and documents pertaining to the maintenance performed and compliance with the Monitoring and Quality Assurance and Quality Control (QA/QC) procedures outlined in 40 CFR § 98.304 for SF₆ circuit breakers.
5. Permittee shall maintain records and submit a written report of all excess emissions to EPA semi-annually except when more frequent reporting is specifically required by an applicable subpart or the Administrator or authorized representative, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. The report is due on the 30th day following the end of each semi-annual period and shall include the following:
 - a. Time intervals, date and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;
 - b. Time and date of each period during which the monitoring equipment was inoperative (monitoring down-time);
 - c. If there has been no excess emissions or monitoring downtime during the reporting period, a statement to that effect;
 - d. Any failure to conduct any required source testing, monitoring, or other compliance activities; and

- e. Any violation of limitations on operation, including but not limited to, restrictions on hours of operation of the emergency generator or natural gas heater.
6. Excess emissions shall be defined as any period in which the facility emissions exceed a maximum emission limit set forth in this permit, a malfunction occurs at an emission unit listed in the Equipment List that results in excess GHG emissions, or any other unauthorized GHG emissions occur.
7. Excess emissions indicated by GHG emission source certification testing or compliance monitoring shall be considered violations of the applicable emission limit for the purpose of this permit unless it is shown that the testing or compliance monitoring data is not accurate.
8. Instruments and monitoring systems required by this PSD permit shall have a 95% on-stream time on an annual basis.
9. All records required by this PSD permit shall be retained for not less than 5 years following the date of such measurements, maintenance, and reporting.

V. INITIAL PERFORMANCE TESTING REQUIREMENTS:

- A. The Permittee shall perform stack sampling and other testing to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the turbine (EPN TURB1) and to determine the initial compliance with the CO₂ emission limits established in this permit. Sampling shall be conducted in accordance with 40 CFR § 60.8 and EPA Method 3a or 3b for the concentration of CO₂.

The stack test shall consist of three separate runs at or above 90% of maximum load operations and three separate runs below 70% but above 50% load operation. Stack gas flow rate measurements, as well as moisture measurements (if needed), shall be made during each test run. The electrical generation (gross megawatts) during each test run shall also be recorded. The CO₂ emission rate shall be calculated as defined below and recorded for each test run in lb CO₂/MWh (gross) and lb CO₂/hr. The arithmetic mean for the three test runs at or above 90% of maximum load operation and the arithmetic mean for the three test runs below 70% but above 50% load operation shall also be calculated and recorded.

1. The CO₂ hourly average emission rate determined by the three runs below at or above 90% of maximum load multiplied by 4,572 hours.
 2. If the above calculated CO₂ emission total does not exceed the TPY limit specified on Table 1, no compliance strategy needs to be developed.
 3. If the above calculated CO₂ emission total exceeds the TPY limit specified in Table 1, the facility shall:
 - a. Document the exceedance in the test report; and
 - b. Explain within the report how the facility will assure compliance with the CO₂ emission limit listed in Table 1.
- B. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility, performance test(s) shall be conducted and a written report of the performance testing results furnished to EPA. Additional sampling may be required by TCEQ or EPA.

- C. Permittee shall submit a performance test protocol to EPA no later than 30 days prior to the test to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol, and any changes required by EPA.
- D. Performance tests shall be conducted under such conditions to ensure representative performance of the affected facility. The Permittee shall make available to EPA such records as may be necessary to determine the conditions of the performance tests.
- E. The Permittee shall provide EPA at least 30 days' prior notice of any performance test, except as specified under other subparts, to afford EPA the opportunity to have an observer present and/or to attend a pre-test meeting. If there is a delay in the original test date, the facility must provide at least 7 days prior notice of the rescheduled date of the performance test unless EPA approves an earlier rescheduled date due to unforeseen events, such as delays that are caused by weather.
- F. The Permittee shall provide, or cause to be provided, performance testing facilities as follows:
1. Sampling ports adequate for test methods applicable to this facility,
 2. Safe sampling platform(s),
 3. Safe access to sampling platform(s), and
 4. Utilities for sampling and testing equipment.
- G. Emission testing for the turbine shall be performed every five years, plus or minus 6 months, from when the previous performance test was performed to verify continued performance at permitted emission limits.

VI. AGENCY NOTIFICATIONS

Permittee shall submit GHG permit applications, permit amendments, and other applicable permit information to:

Multimedia Planning and Permitting Division
EPA Region 6
1445 Ross Avenue (6 PD-R)
Dallas, TX 75202
Email: Group R6AirPermits@EPA.gov

Permittee shall submit a copy of all compliance and enforcement correspondence as required by this Approval to Construct to:

Compliance Assurance and Enforcement Division
EPA Region 6
1445 Ross Avenue (6EN)
Dallas, TX 75202