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-104949-GHG

PERMITTEE: Copano Processing, L.P.
Two Allen Center
1200 Smith Street, Suite 2300
Houston, TX 77002

FACILITY NAME: Houston Central Gas Plant
Cryogenic 3 Process Unit

FACILITY LOCATION: 1650 County Road 255 South
Sheridan, TX 77475

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 Copano Processing, L.P. (Copano) for Greenhouse Gas (GHG) emissions. The Permit applies to the addition of a new 400 MMSCF/day cryogenic process train (Cryogenic 3 Process Unit) at their existing Houston Central Gas Plant (HCP). This train will consist of inlet gas mole sieve dehydrators, two supplemental heaters, a cryogenic process unit, a liquid amine treating unit controlled by a Regenerative Thermal Oxidizer (RTO), two residue turbines, an amine storage tank, and associated fugitive components.

Copano is authorized to construct a new cryogenic process train at the existing Houston Central Gas Plant 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) Oil and Gas Non-Rule Standard Permit No. 104949. 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 Clean Air Act (CAA). This PSD Permit does not relieve Copano 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, 63, 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).

Draft for January 16, 2013 public notice.

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.

_____ _____

David F. Garcia, Acting Director Date
Multimedia Planning and Permitting Division

Copano Processing, L.P. (PSD-TX-104949-GHG)
Prevention of Significant Deterioration Permit
For Greenhouse Gas Emissions
Draft Permit Conditions

PROJECT DESCRIPTION

Following the construction authorized by this permit, the facility will construct a new 400 million standard cubic feet per day (MMSCFD) cryogenic process train (Cryogenic 3 Process Unit) at the Houston Central Gas Plant in Sheridan, Texas. The Cryogenic 3 Process Unit will increase the total plant capacity to 1.5 billion standard cubic feet per day (BSCFD) from 1,100 MMSCFD. The Cryogenic 3 Process Unit will consist of inlet gas mole sieve dehydrators, two supplemental heaters, a cryogenic process unit, a liquid amine treating unit controlled by a Regenerative Thermal Oxidizer (RTO), two residue turbines, an amine storage tank, and associated fugitive components.

New project air emission sources consist of two supplemental gas-fired heaters (HTR-3 and HTR-4), an Amine (LL) Treater controlled by a new Regenerative Thermal Oxidizer (RTO-3), an amine storage tank (TANK-3), two Solar Mars 100 combustion turbines (TURB-5 and TURB-6) used for compression of the residue gas, fugitive piping components (CRYO3 FUG).

EQUIPMENT LIST

The following devices are subject to this GHG PSD permit.

FIN	EPN	Description
HTR-3 HTR-4	HTR-3 HTR-4	2 Supplemental Heaters (Combustion Unit). Each unit has a maximum design heat input rate of 25MMbtu/hr, and is fired with natural gas.
RTO-3	RTO-3	Regenerative Thermal Oxidizer (RTO) (Combustion Unit).
TURB-5 TURB-6	TURB-5 TURB-6	2 Combustion Turbines (Combustion Unit). Each unit has a nominal rated capacity of 15,000HP, and is fired with natural gas.
CRYO3 FUG	CRYO3 FUG	Process Fugitives from the Cryogenic 3 Process Unit

I. GENERAL PERMIT CONDITIONS

A. PERMIT EXPIRATION

As provided in 40 CFR §52.21(r)(2), 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)(2), 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 the 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 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 restoration of normal operations after any failure 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 required to be kept under the terms and conditions of this PSD Permit;

2. 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, the TCEQ Standard Permit, 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 CAA.

I. ACRONYMS AND ABBREVIATIONS

API	American Petroleum Institute
BACT	Best Available Control Technology
CAA	Clean Air Act
CC	Carbon Content
CCS	Carbon Capture and Sequestration
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CH_4	Methane
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
dscf	Dry Standard Cubic Foot
EF	Emission Factor
EPN	Emission Point Number
FIN	Facility Identification Number
FR	Federal Register
GHG	Greenhouse Gas
gr	Grains
GWP	Global Warming Potential
HHV	High Heating Value
hp	Horse Power
hr	Hour
LAER	Lowest Achievable Emission Rate
lb	Pound
LDAR	Leak Detection and Repair
MMBtu	Million British Thermal Units
MSS	Maintenance, Start-up and Shutdown
NNSR	Nonattainment New Source Review
N_2O	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
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TPY	Tons per Year
USC	United States Code
VOC	Volatile Organic Compound
WHRU	Waste Heat Recovery Unit

II. Annual Emission Limits

Annual emissions, in tons per year (TPY) calculated on a 12-month rolling basis, shall not exceed the following:

Table 1. Annual Emission Limits[1]

FIN	EPN	Description	GHG Mass Basis		TPY CO_2e[2,3]	BACT Requirements
				TPY[2]		
TURB-5	TURB-5	Combustion Turbine	CO_2	65,033	65,097	40% efficiency with WHRU, equates to 0.84 lbs CO_2e/hp-hr. See permit condition III.A.1.m.
			CH_4	1		
			N_2O	0.1		
TURB-6	TURB-6	Combustion Turbine	CO_2	65,033	65,097	40% efficiency with WHRU, equates to 0.84 lbs CO_2e/hp-hr. See permit condition III.A.1.m.
			CH_4	1		
			N_2O	0.1		
HTR-3	HTR-3	Supplemental Heater	CO_2	876	877	Limit use to 600 hours/year. Use of Good Combustion Practices. See permit condition III.A.2.c. through III.A.2.n.
			CH_4	Negligible[4]		
			N_2O	Negligible[4]		
HTR-4	HTR-4	Supplemental Heater	CO_2	876	877	Limit use to 600 hours/year. Use of Good Combustion Practices. See permit condition III.A.2.c. through III.A.2.n.
			CH_4	Negligible[4]		
			N_2O	Negligible[4]		
RTO-3	RTO-3	Regenerative Thermal Oxidizer	CO_2	69,452	69,459	Use of good combustion practices. See Special Conditions III.A.3.
			CH_4	0.3		
			N_2O	Negligible[4]		
CRYO3 FUG	CRYO3 FUG	Fugitive Process Emissions	CH_4	Not Applicable	Not Applicable	Implementation of LDAR Program. See permit condition III.A.5.
Totals[5]			**CO_2**	**201,270**	**CO_2e 201,871**	
			CH_4	**25**		
			N_2O	**0.2**		

1. Compliance with the annual emission limits (tons per year) is based on a 12-month rolling basis.
2. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions only from the facility during all operations and include MSS activities.
3. Global Warming Potentials (GWP): CH_4 = 21, N_2O = 310
4. All values indicated as negligible are less than 0.01 TPY with appropriate rounding.
5. The total emissions for CH_4 and CO_2e include the PTE for process fugitive emissions of CH_4. These totals are given for informational purposes only and do not constitute emission limits.

III. SPECIAL PERMIT CONDITIONS

A. Emission Unit Work Practice Standards, Operational Requirements, and Monitoring

1. Combustion Turbines (TURB-5 and TURB-6)

   a. The combustion turbines shall combust pipeline quality natural gas with a fuel sulfur content of up to 5 grains of sulfur per 100 dry standard cubic feet (gr S/100 dscf).
   b. The combustion turbines shall be equipped with a Waste Heat Recovery Unit (WHRU).
   c. All fuel combustion units identified in this permit shall have fuel metering for each fuel, and Permittee shall:

      i. Measure and record the fuel flow rate using an operational non-resettable elapsed flow meter or by recording the flow rate data in an electronic format with individual flow measurements being taken no less frequently than once every 15 minutes. Electronic data may be reduced to hourly averages for recordkeeping purposes.
      ii. Record the total fuel combusted for each fuel monthly.
      iii. The fuel gross calorific value (GCV) [high heat value (HHV)] of the fuel shall be determined, at a minimum, semiannually by the procedures contained in 40 CFR Part 98.34(a)(6) and records shall be maintained of the semiannual fuel GCV for a period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in the heaters or shall allow a sample to be taken by EPA for analysis.
      iv. The fuel flow of the fuel fired in the combustion turbines (TURB-5 and TURB-6) shall be continuously monitored and recorded.

   d. Permittee shall calibrate and perform preventative maintenance check of the fuel gas flow meters and document annually.
   e. Permittee shall install temperature monitoring equipment for measurement of temperature in the exhaust gas, engine, and the WHRU.
   f. Permittee shall install and operate pressure and vibration monitoring equipment on the combustion turbine packages.
   g. The combustion turbines shall be equipped with a control package that monitors the air/fuel ratio in the combustion primary zone.
   h. All analyzers identified in this section III.A.1. shall achieve 95% on-stream time or greater.
   i. The Permittee shall record the volume of residue compressed on a daily basis, and totaled monthly in MMSCF.
   j. The Permittee shall measure and record the flow and temperature on the hot oil system that uses the recovered heat from the WHRU. The amount of heat recovered by the WHRU will be calculated from these measurements and converted to horse power (hp). The hp from the WHRU will be added to the combustion turbine to give an overall system thermal efficiency.

k. The combustion turbines and WHRU shall meet a BACT limit of 40% minimum thermal efficiency, which equates to 0.84 lbs of CO_2e/hp-hr, on a 12-month rolling average basis.
l. Compliance with the BACT limit will be based on a monitoring computer system installed that will automatically calculate efficiency for each hour of operation using monitored firing rate, turbine output in hp-hr, and the hp output equivalent from the WHRU.
m. Permittee shall calculate, on a monthly basis, the amount of CO_2 emitted from combustion in tons/yr using equation C-2a in 40 CFR Part 98 Subpart C, converted to short tons. Compliance shall be based on a 12-month rolling basis to be updated by the last day of the following month.
n. Permittee shall calculate the CH_4 and N_2O emissions on a 12-month rolling basis to be updated by the last day of the following month. Permittee shall determine compliance with the CH_4 and N_2O emissions limits contained in this section using the default CH_4 and N_2O emission factors contained in Table C-2 and equation C-9a of 40 CFR Part 98 and the measured actual heat input (HHV), converted to short tons.
o. Permittee shall calculate the CO_2e emissions on a 12-month rolling basis, based on the procedures and Global Warming Potentials (GWP) contained in Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, as published on October 30, 2009 (74 FR 56395). The record shall be updated by the last day of the following month.

2. Heaters (HTR-3 and HTR-4)

a. Fuel for the heaters shall be limited to pipeline quality natural gas with a fuel sulfur content of up to 5 grains of sulfur per 100 dry standard cubic feet (gr S/100 dscf). The fuel gross calorific value (GCV) [high heat value (HHV)] of the fuel shall be determined, at a minimum, semiannually by the procedures contained in 40 CFR Part 98.34(a)(6) and records shall be maintained of the semiannual fuel GCV for a period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in the heaters or shall allow a sample to be taken by EPA for analysis.
b. Permittee shall install and maintain an operational non-resettable elapsed time meter for the heaters. The meters must be calibrated on an annual basis.
c. The heaters shall have an operational limit of 600 hours per year for each heater on a 365-day rolling basis. Run-time hours shall be recorded on a daily basis and compliance with the annual operational limit determined daily.
d. The flow rate of the fuel combusted in natural gas-fired combustion emission units identified in this section shall be measured and recorded using an operational totalizing fuel flow meter at each inlet.
e. Permittee shall perform cleaning of the burner tips on an as-needed basis, but no less than once every 3 years.
f. Permittee shall clean the convection section tubes on an as-needed basis, but no less than once every 3 years.

g. Permittee shall install, operate, and maintain a manually operated air/fuel control system.
h. Permittee shall calibrate and perform preventative maintenance on the air/fuel control analyzers once per quarter, at a minimum.
i. Permittee shall utilize insulation materials (e.g. ceramic fiber blankets and Kaolite^{TM}) where feasible to reduce heat loss.
j. The annual firing rate for the hot oil heaters (HTR-3 and HTR-4) shall not exceed 15,000 MMBtu/yr per unit, 12-month rolling average.
k. The actual firing rates shall be calculated monthly to demonstrate compliance with the 12-month rolling average firing rate in III.A.2.j.
l. Permittee shall calculate, on a monthly basis, the amount of CO_2 emitted from combustion in tons/yr using equation C-2a in 40 CFR Part 98 Subpart C, converted to short tons. Compliance shall be based on a 12-month rolling basis.
m. Permittee shall calculate the CH_4 and N_2O emissions on a 12-month rolling basis. Permittee shall determine compliance with the CH_4 and N_2O emissions limits contained in this section using the default CH_4 and N_2O emission factors contained in Table C-2 and equation C-9a of 40 CFR Part 98 and the measured actual heat input (HHV), converted to short tons.
n. Permittee shall calculate the CO_2e emissions on a 12-month rolling basis, based on the procedures and Global Warming Potentials (GWP) contained in Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, as published on October 30, 2009 (74 FR 56395).

3. Regenerative Thermal Oxidizer (RTO-3)

a. The Cryogenic 3 Process Unit shall be equipped with a regenerative thermal oxidizer (RTO-3). The regenerative thermal oxidizer (RTO) may combust pipeline quality natural gas and waste acid gas from the amine treating unit.
b. The regenerative thermal oxidizer shall have an initial stack test to verify destruction and removal efficiency (DRE) of at least 99% for methane. If current acid gas flow rate to the RTO exceeds the flow rate during the stack testing by 10% or greater, additional sampling may be required by TCEQ or EPA.
c. For burner combustion, natural gas fuel usage (scf) shall be recorded using an operational non-resettable elapsed flow meter at the RTO.
d. The flow rate of the waste gas combusted shall be measured and recorded using an operational non-resettable elapsed flow meter at the RTO.
e. Waste gas will be sampled and analyzed on a monthly basis for composition following one of the fuel sampling and analysis methods listed at §98.34(a)(6). The sampled data will be used to calculate GHG emissions to show compliance with the limits specified in Table 1.

f. Permittee shall calculate GHG emissions, on a monthly basis, using equations W-20 (un-combusted CO_2), W-21 (combusted CO_2), and W-19 (un-combusted CH_4) consistent with 40 CFR Part 98, Subpart W [98.233(n)(4)] and converted from volumetric emissions to mass emissions using equation W-36.

g. Periodic maintenance will help maintain the efficiency of the RTO and shall be performed at a minimum annually or more often as recommended by the manufacturer specifications.

h. The Permittee shall maintain the combustion temperature at a minimum of 1,550 ºF at all times when processing waste gases from the amine unit in the RTO. Temperature monitoring of the thermal oxidizer will ensure proper operation. The Permittee shall install and maintain a temperature recording device with an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5ºC.

i. The thermal oxidizers' exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizers. The temperature measurement devices shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency.

j. Oxygen analyzers shall continuously monitor and record oxygen concentration when waste gas is directed to the thermal oxidizers. It shall reduce the oxygen readings to an averaging period of 6 minutes or less and record it at that frequency.

k. The oxygen analyzers shall be quality-assured at least semiannually using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., two successive semiannual CGAs may be conducted).

4. Process Fugitives (CRYO3 FUG)

The permittee shall implement the TCEQ 28M leak detection and repair (LDAR) program for fugitive emissions of methane.[1]

B. Continuous Emissions Monitoring Systems (CEMS)

1. As an alternative to Special Conditions III.A.1.m. and III.A.3.f. Permittee may install a CO_2 CEMS and volumetric stack gas flow monitoring system with an automated data acquisition and handling system for measuring and recording CO_2 emissions discharged to the atmosphere, and use these values to show compliance with the annual emission limit in Table 1.
2. Permittee shall ensure that all required CO_2 monitoring system/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.

[1] The boilerplate special conditions for the TCEQ 28M LDAR program can be found at http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/bpc_rev28m.pdf.

3. Permittee shall ensure compliance with the specifications and test procedures for CO_2 emission monitoring system at stationary sources, 40 CFR Part 75, or 40 CFR Part 60, Appendix B, Performance Specification numbers 1 through 9, as applicable.
4. Permittee shall meet the appropriate quality assurance requirements specified in 40 CFR Part 60, Appendix F for the CO_2 emission monitoring system.

IV. Recordkeeping and Reporting

1. In order to demonstrate compliance with the GHG emission limits in Table 1, the Permittee will monitor the following parameters and summarize the data on a calendar month basis:

    a. Operating hours for all air emission sources;
    b. The natural gas fuel usage for all combustion sources, using continuous fuel flow monitors (a group of equipment can utilize a common fuel flow meter, as long as actual fuel usage is allocated to the individual equipment based upon actual operating hours and maximum firing rate); and,
    c. Semi-annual fuel sampling for natural gas, and monthly sampling of waste gas at a minimum.

2. Permittee shall maintain and keep records of the monitoring results, as well as the repair and maintenance records in implementing the TCEQ 28M leak detection and repair program.
3. Permittee shall maintain a all records, data, measurements, reports, and documents related to the operation of the facility, including, but not limited to, the following: all records or reports pertaining to significant maintenance performed on any system or device at the facility; duration of startup, shutdown; the initial startup period for the emission units; pollution control 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. The records must be retained for 5 years from the date of such measurements, maintenance, reports, and/or records.
4. Permittee shall maintain records of all GHG emission units and CO_2 emission certification tests and monitoring and compliance information required by this permit.
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 within 30 days of the end of each semi-annual reporting period, and shall include the following:

a. Time intervals, data and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;
b. Applicable time and date of each period during which the monitoring equipment was inoperative (monitoring down-time);
c. A statement in the report of a negative declaration; that is; a statement when no excess emissions occurred or when the monitoring equipment has not been inoperative, repaired or adjusted; and
d. Any failure to conduct any required source testing, monitoring, or other compliance activities.

6. Excess emissions shall be defined as any period in which the facility emissions exceed a maximum emission limit set forth in this permit.
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.
8. All records required by this PSD Permit shall be retained and remain accessible for not less than 5 years following the date of such measurements, maintenance, and reporting.

V. Initial Performance Testing Requirements:

A. The holder of this permit shall perform an initial stack test to establish the actual quantities of air contaminants being emitted into the atmosphere from emission units TURB-5, TURB-6, RTO-3 to determine the initial compliance with the CO_2 emission limits established in this permit. Sampling shall be conducted in accordance with 40 CFR § 60.8 and EPA Method 3a or 3b, in 40 CFR 60 Appendix A, for the concentration of CO_2.

1. For each Combustion Turbine, calculate the CO_2 hourly average emission rate determined under maximum operating test conditions, then convert to lb/MMBtu. Use the following equation to calculate the annual emissions.

Where:

127.14 MMBtu/hr = the annual average firing rate for each combustion turbine upon which the emissions in Table 1 were based.

2. For the Regenerative Thermal Oxidizer, calculate the CO_2 hourly average emission rate determined under maximum operating test conditions, then convert to lb/scf of acid gas flow. Use the following equation to calculate the annual emissions.

Where:

149,275 scf/hr = the waste gas flow rate to the thermal oxidizers

3. If the above calculated CO_2 emission total does not exceed the tons per year (TPY) specified on Table 1, no compliance strategy needs to be developed.
4. If the above calculated CO_2 emission total exceeds the tons per year (TPY) specified in Table 1, the facility shall;
    a. Document the predicted exceedance in the test report; and
    b. Explain within the report how the facility will assure compliance with the CO_2 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 tests(s) must be conducted and a written report of the performance testing results furnished to the EPA. During subsequent operations if current Combustion Turbine firing rates exceed the rates during stack testing by 10 percent or greater, stack sampling shall be performed within 120 days. During subsequent operations, if current acid gas flow rate to the RTO exceeds the rates during stack testing by 10 percent or greater, 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 testing must be conducted using flow rates that are comparable to the normal operating flow rates.

E. Fuel sampling of waste gases for emission unit RTO-3 shall be conducted in accordance with 40 CFR Part 98.

F. Performance tests must be conducted under such conditions to ensure representative performance of the affected facility. The owner or operator must make available to the EPA such records as may be necessary to determine the conditions of the performance tests.

G. The owner or operator must provide the EPA at least 30 days' prior notice of any performance test, except as specified under other subparts, to afford the 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.

L. The owner or operator 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.

M. Unless otherwise specified, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For purposes of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply.

VI. Agency Notifications

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

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