

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-1280-GHG

PERMITTEE: Equistar Chemicals, LP
P.O. Box 777
Channelview, TX 77530

FACILITY NAME: Equistar Chemicals, LP
Channelview Complex
Channelview North Plant

FACILITY LOCATION: 8280 Sheldon Road, Building 1
Channelview, TX 77530

Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, Part C (42 U.S.C. Section 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 Equistar Chemicals, LP for Greenhouse Gas (GHG) emissions. The Permit applies to the restart of the methanol unit (MeOH Restart Project) at the existing Channelview North Plant located in Channelview, Texas.

Equistar is authorized to modify and construct equipment at the Channelview Complex, Channelview North Plant, as part of the MeOH Restart Project 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) PSD permit No. PSD-TX-1280 and Nonattainment New Source Review permit No. N144. Failure to comply with any condition or terms 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 Equistar 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.

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

Date

DRAFT

Equistar Chemical Company LP (PSD-TX-748-GHG)
Prevention of Significant Deterioration Permit
For Greenhouse Gas Emissions
Final Permit Conditions

PROJECT DESCRIPTION

With this permit application, Equistar intends to restart the methanol unit (MeOH Restart Project) at the Channelview North Plant in Channelview, Texas. As part of the MeOH Restart Project, Equistar is proposing to transfer the existing equipment from Highly Purified Isobutylene (HPIB) production back to Methanol (MeOH) production. The GHG PSD permit, will allow Equistar to restart the methanol unit at the existing facility at the Channelview Complex located in Channelview, Harris County, Texas. The rated capacity of the Channelview MeOH process unit is approximately 273 million gallons of high purity methanol per year using light hydrocarbon (typically natural gas) as a feedstock. The unit also has the capacity of injecting carbon dioxide as a supplemental feed.

The feedstock is compressed, preheated, and pretreated to remove sulfur and chlorine compounds. The treated feed is then mixed with steam before being sent to the reformer. The reformer consists of a large number of catalyst-filled tubes suspended in the radiant section of a process heater. Process stream containing light hydrocarbons and steam flows into the tubes where it is heated to reaction temperature to produce the synthesis gas.

Steam required to operate the unit is produced from waste heat in the reformer. The synthesis gas is cooled, compressed, reheated, and sent to the conversion reactor. The converter effluent is cooled with the crude methanol, separated as a liquid phase, and sent to product purification. The off-gas is recycled to the methanol converter. The purge gas is used as fuel in the reformer fuel gas.

Light ends are removed in the topping column from the crude methanol and used as fuel in the reformer. The topped product (methanol) is sent to a refining column, where the high purity methanol is removed as the overhead stream, cooled and sent to storage tanks and the bottom stream consisting of water with a trace of hydrocarbons is sent to on-site wastewater treatment. A refining column side stream (fusel oil) containing water and mixed alcohol is returned to the reformer as feed.

EQUIPMENT LIST

The following devices are subject to this GHG PSD permit.

FIN	EPN	Description
HTF7001	EHTF7001	Reformer Furnace (Combustion Unit). The furnace has a maximum design heat input rate of 1,615MMbtu/hr, and will be equipped with a Selective Catalytic Reduction (SCR) system and low NOx burners.
MEOHFLARE	EMEOHFLARE	Methanol (MeOH) Flare (Combustion Unit).
EMERFLARE	EEMERFLARE	Methanol Emergency Flare (Combustion Unit)
FUGMEOH	EFUGMEOH	Process Fugitives

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 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 thirty days of the letter signature.

Draft for January 2, 2013 public notice.

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 PSD Permit PSD-TX-1280, issued on October 23, 2012 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.

DRAFT

I. ACRONYMS AND ABBREVIATIONS

AVO	Auditory, Visual, and Olfactory
BACT	Best Available Control Technology
C ₃ +	Hydrocarbon with Three or More Carbon Atoms
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 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
HGB	Houston, Galveston, Brazoria Area
HHV	High Heating Value
HPIB	Highly Purified Isobutylene
hr	Hour
HRSRG	Heat Recovery Steam Generating
LAER	Lowest Achievable Emission Rate
lb	Pound
LDAR	Leak Detection and Repair
MeOH	Methanol
MMBtu	Million British Thermal Units
MSS	Maintenance, Start-up and Shutdown
NNSR	Nonattainment New Source Review
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
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TOC	Total Organic Carbon
TPY	Tons per Year
USC	United States Code
VDU	Vapor Destruction Unit
VHP	Very High Pressure
VOC	Volatile Organic Compound

II. Annual Emission Limits

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

Table 1. Annual Emission Limits

FIN	EPN	Description	GHG Mass Basis		TPY CO ₂ e ^{1,2}
				TPY ¹	
HTF7001	EHTF7001	Reformer Furnace	CO ₂	826,600	827,556
			CH ₄	16	
			N ₂ O	2	
MEOHFLARE EMERFLARE	EMEOHFLARE EEMERFLARE	Methanol Flare and Methanol Emergency Flare ³	CO ₂	3,936	3,936
			CH ₄	Negligible	
			N ₂ O	Negligible	
FUGMEOH	EFUGMEOH	Fugitive Process Emissions	CO ₂	Not Applicable	Not Applicable
			CH ₄	Not Applicable	
Totals⁴			CO ₂	830,614	CO₂e 831,675
			CH ₄	21	
			N ₂ O	2	

1. The TPY emission limits specified in this table are not to be exceeded for these EPNs and include emissions from the facility during all operations and include MSS activities.
2. Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310
3. The methanol unit waste gas flow may be routed to either flare, or to both flares.
4. Total emissions include the PTE of 5 TPY CH₄ and 39 TPY CO₂ for fugitive emissions, and 39 TPY CO₂ from the existing East Plant Flare (17E01) for a total of 183 TPY CO₂e. Totals are given for informational purposes only and do not constitute emission limits.

III. BACT Limits

BACT requirements for all new and modified units are identified in the table below.

Table 2. BACT Limits

FIN	EPN	Description	BACT Requirements
HTF7001	EHTF7001	Reformer Furnace	Furnace Gas Exhaust Temperature \leq 320 °F. Maintain Thermal Efficiency of 90%. See permit condition IV.A.1.o.through q.
MEOHFLARE	EMEOHFLARE	Methanol Flare	Good Combustion Practices. See permit condition IV.A.2.
EMERFLARE	EEMERFLARE	Methanol Emergency Flare	Good Combustion Practices. See permit condition IV.A.2.
FUGMEOH	EFUGMEOH	Fugitive Process Emissions	Implementation of LDAR program. See permit condition IV.A.3.

IV. SPECIAL PERMIT CONDITIONS

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

1. Reformer Furnace (EHTF7001)

- a. The reformer furnace shall combust pipeline quality natural gas and/or plant produced high hydrogen fuel gas (fuel gas).
- b. 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. Analyze fuel gas composition at least hourly.
 - iv. The fuel gross calorific value (GCV) [high heat value (HHV)], carbon content and, if applicable, molecular weight, shall be determined, at a minimum, monthly by the procedures contained in 40 CFR Part 98.34(b)(3). Records of the fuel GCV shall be maintained for a minimum period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in any unit covered by this permit at the time of the request, or shall allow a sample to be taken by EPA for analysis.
 - v. Pipeline Quality Natural Gas shall be exempt from this requirement (III.A.1.iii.) provided Permittee receives and maintains quarterly records of the vendor's analysis, and the data is of sufficient quality to yield further analysis as required above.
 - vi. The fuel flow of the fuel fired in the reformer furnace (EHTF7001) shall be continuously monitored and recorded at least once every 15 minutes.
- c. Permittee shall calibrate and perform preventative maintenance check of the fuel gas flow meters and document biannually.
- d. Permittee shall install, operate, and maintain an O₂ analyzer on the furnace flue gas at a location downstream of the radiant sections of the furnace.
- e. The oxygen analyzer shall continuously monitor and record the excess oxygen concentration in the combustion gases. The monitoring data shall be reduced to hourly average concentrations at least once every day using a minimum of four equally spaced data points over each one-hour period.
- f. Permittee shall perform preventative maintenance check of the oxygen analyzer and document quarterly.
- g. The oxygen analyzer shall be quality-assured at least once per quarter 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).
- h. The Permittee will validate the oxygen analyzer with zero and span gas at least

- weekly to maintain 1% accuracy.
- i. Excess oxygen shall be controlled to less than 5% to ensure efficiency.
 - j. All analyzers identified in this section IV.A.1. shall achieve 95% on-stream time or greater.
 - k. Permittee shall utilize insulation materials where feasible to reduce heat loss.
 - l. The reformer furnace shall not exceed the one-hour maximum firing rate of 1,615 MMBtu/hr.
 - m. The one-hour maximum firing rates shall be determined daily to demonstrate compliance with the firing rate condition in IV.A.1.l.
 - n. Permittee shall continuously monitor and record the furnace gas exhaust temperature hourly and limit the temperature to less than or equal to 320 °F on a 365-day rolling average basis. This stack temperature is for normal operations and does not include commissioning, startup, and shutdown.
 - o. The Permittee shall maintain a minimum overall thermal efficiency of 90% on a 12-month rolling average basis, calculated monthly, for the furnace (EHTF7001) excluding periods of start-up, shutdown, and malfunction.
 - p. The furnace will be continuously monitored for exhaust temperature, input fuel temperature, and stack oxygen. Thermal efficiency for the furnace will be calculated monthly from these parameters using equation G-1 from American Petroleum Institute (API) methods 560 (4th ed.) Annex G.
 - q. Permittee shall calculate, on a monthly basis, the amount of CO₂ emitted from combustion in tons/yr using equation C-5 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.
 - r. Permittee shall calculate the CH₄ and N₂O emissions on a 12-month rolling basis to be updated by the last day of the following month. Permittee shall determine compliance with the CH₄ and N₂O emissions limits contained in this section using the default CH₄ and N₂O emission factors contained in Table C-2 and equation C-8 of 40 CFR Part 98 and the measured HHV, converted to short tons.
 - s. Permittee shall calculate the CO₂e 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. Flares (EMEOHFLARE and EEMERFLARE)

- a. The flares shall be designed to achieve a minimum destruction and removal efficiency (DRE) of 99% based on flowrate and gas composition measurements.
- b. The flares shall only combust pipeline natural gas in the pilots as a continuous stream.
- c. The flares shall be designed and operated in accordance with 40 CFR 60.18 including specifications of minimum heating value of the waste gas, maximum tip velocity, and pilot flame monitoring. An infrared monitor is considered equivalent to a thermocouple for pilot flame monitoring purposes.
- d. Flare (EMEOHFLARE) shall be situated to receive waste gases from the methanol unit.
 - (i) The flare is steam assisted.

- (ii) The only gases flowing continuously to the flare are pilot gas and sweep gas (natural gas).
 - (iii) The waste gas from MSS activities from the Methanol Unit is mixed with sweep gas (natural gas) upstream of a mass flow meter located in the flare header.
 - (iv) Flare header flow meter will measure flow at least once each 15 minutes. The flow meter shall be calibrated at least biannually.
 - (v) The flare shall be equipped with a gas composition analyzer. The analyzer shall measure the gas composition at least once per hour and be calibrated monthly.
 - (vi) Permittee must record the time, date, HHV in MMBtu/hr and duration of each MSS event. The records must include hourly CH₄ emission levels as measured by the in-line gas analyzer (Gas chromatograph or equivalent with volumetric stack gas flowrate) and the calculations based on the actual heat input for the CO₂, N₂O, and CH₄ emissions during each MSS event. These records must be kept for five years following the date of each event.
 - (vii) CO₂ emissions are calculated using equation Y-1 found in 40 CFR Part 98 Subpart Y, §98.253(b)(1)(ii)(A). CH₄ and N₂O emissions are calculated using equations Y-4 and Y-5 as found in 40 CFR Part 98 Subpart Y.
 - (viii) Compliance with the annual emission limit shall be determined on a 12-month rolling basis.
- e. Flare (EEMERFLARE) is for high waste gas flow rates from the methanol unit. It may share the load with the flare (EMEHOFLARE).
- (i) The flare is non-assisted.
 - (ii) The waste gas from MSS activities from the Methanol Unit is mixed with sweep gas (natural gas) upstream of a mass flow meter located in the flare header.
 - (iii) Flare header flow meter will measure flow at least once each 15 minutes. The flow meter shall be calibrated at least biannually.
 - (iv) The flare shall be equipped with a gas composition analyzer. The analyzer shall measure the gas composition at least once per hour and be calibrated monthly.
 - (v) Permittee must record the time, date, HHV in MMBtu/hr and duration of each MSS event. The records must include hourly CH₄ emission levels as measured by the in-line gas analyzer (Gas chromatograph or equivalent with volumetric stack gas flowrate) and the calculations based on the actual heat input for the CO₂, N₂O, and CH₄ emissions during each MSS event. These records must be kept for five years following the date of each event.
 - (vi) CO₂ emissions are calculated using equation Y-1 found in 40 CFR Part 98 Subpart Y, §98.253(b)(1)(ii)(A). CH₄ and N₂O emissions are calculated using equations Y-4 and Y-5 as found in 40 CFR Part 98 Subpart Y.
 - (vii) Compliance with the annual emission limit shall be determined on a 12-month rolling basis.

3. Process Fugitives (EFUGMEOH)

- a. The Permittee shall implement the TCEQ 28LAER leak detection and repair (LDAR) program for fugitive emissions of methane.
- b. The Permittee shall implement an as-observed AVO program to monitor for fugitive emissions between instrumented monitoring as required in IV.A.3.a above.
- c. The Permittee shall use high quality components and materials of construction that is compatible with the service in which they are employed.

B. Continuous Emissions Monitoring Systems (CEMS)

1. As an alternative to Special Conditions IV.A.1. p. through IV.A.1.r. Permittee may install a CO₂ CEMS and volumetric stack gas flow monitoring system with an automated data acquisition and handling system for measuring and recording CO₂ 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 CO₂ 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.
3. Permittee shall ensure compliance with the specifications and test procedures for CO₂ 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.

V. Recordkeeping and Reporting

A. Records

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. Records of the fuel consumed by each source
 - c. The 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
 - d. Semi-annual fuel sampling for natural gas, daily fuel sampling of plant fuel gas, or other frequencies as allowed by 40 CFR Part 98 Subpart C §98.34(b)(3).
2. Permittee shall maintain a file of 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 file must be retained for not less than five years following the date of such measurements, maintenance, reports, and/or records.
3. 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, 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;
 - d. Any failure to conduct any required source testing, monitoring, or other compliance activities; and
 - e. Any violation of limitations on operation.
4. Excess emissions shall be defined as any period in which the facility emissions exceed a maximum emission limit set forth in this permit, or a malfunction occurs causing an

emissions exceedance.

5. 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.
6. Instruments and monitoring systems required by this PSD permit shall have a 95% on-stream time on an annual basis.
7. 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.
8. Continuously means individual measurement no less frequent than once every 15 minutes. Electronic data may be reduced to hourly averages for recordkeeping purposes.

VI. 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 stack of the Reformer Furnace (EHTF7001) 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.
 1. Multiply the CO₂ hourly average emission rate determined under maximum operating test conditions by 8,760 hours.
 2. If the above calculated CO₂ emission total does not exceed the tons per year (TPY) specified on Table 1, no compliance strategy needs to be developed.
 3. If the above calculated CO₂ emission total exceeds the tons per year (TPY) specified in Table 1, the facility shall:
 - a. Document the potential to exceed 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.** No later than 180 days after initial start-up, or restart after modification of the facility, performance test(s) must be conducted and a written report of the performance testing results furnished to the EPA with 60 days after the testing is completed. During subsequent operations, stack sampling shall be performed within 120 days if current production rates exceed the production rate 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 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.
- E.** 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.

F. 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.

G. 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.

H. Emissions testing, as outlined above, shall be performed every five years, plus or minus 6 months, of when the previous performance test was performed, or within 180 days after the issuance of a permit renewal, whichever comes later to verify continued performance at permitted emission limits.

VII. 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