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-1384-GHG

PERMITTEE: Formosa Plastics Corporation, Texas
201 Formosa Drive
P.O. Box 700
Point Comfort, TX 77978

FACILITY NAME: Formosa Plastics Corporation, Texas

FACILITY LOCATION: 201 Formosa Drive
Point Comfort, TX 77978

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 Formosa Plastics Corporation, Texas (Formosa) for Greenhouse Gas (GHG) emissions. The permit applies to the addition of a new Low Density Polyethylene (LDPE) Plant at its Point Comfort chemical complex located in Calhoun County, Texas.

Formosa is authorized to construct the LDPE Plant as described herein, in accordance with the permit application and supplemental information responses (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. 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 Formosa 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 — Date
Multimedia Planning and Permitting Division

Formosa Plastics Corporation, Texas (PSD-TX-1384-GHG)
Prevention of Significant Deterioration Permit
For Greenhouse Gas Emissions
Draft Permit Conditions

PROJECT DESCRIPTION

The Formosa Plastics Corporation, Texas proposes to expand the Formosa chemical complex within the existing Point Comfort site footprint. Formosa proposes to add a new Low Density Polyethylene (LDPE) plant. In the proposed new LDPE plant the polymerization process will be accomplished with a high pressure tubular reactor process. The LDPE plant will have the capability of producing 625,500 tons per year (TPY) (1,253 million pounds per year) of LDPE products. The LDPE products will consist of different grades including products that use vinyl acetate as a co-monomer.

EQUIPMENT LIST

The following devices are subject to this GHG PSD permit.

FIN	EPN	Description
LD-022 A/B LD-023 A/B	LD-022 A/B LD-023 A/B	Two (2) 18.0 MMBtu/hr regenerative thermal oxidizers
OL3-FLR	OL3-FLR	LDPE contributions to the Olefins 3 Elevated Flare
LD-014	LD-014	Pellet Blending Silo 1
LD-015	LD-015	Pellet Blending Silo 2
LD-002	LD-002	Emergency Engine 400 HP
NG-FUG	NG-FUG	Natural Gas Piping Fugitives
LD-MSS	LD-MSS	LDPE MSS Vessel Opening

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, 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 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.

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-1384 (when issued) 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
Bhp	Brake Horsepower
Btu	British thermal unit
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_2e	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
HP	Horsepower
hr	Hour
HRSG	Heat Recovery Steam Generating
kWh	Kilowatt hours
Kg	Kilogram
LAER	Lowest Achievable Emission Rate
lb	Pound
LDAR	Leak Detection and Repair
LDPE	Low Density Polyethylene
LHV	Lower Heating Value
MAPD	Methyl Acetylene Propadiene
MMBtu	Million British Thermal Units
MSS	Maintenance, Start-up and Shutdown
MW	Megawatts
N_2O	Nitrous Oxides
NSPS	New Source Performance Standards
O_2	Oxygen
PDH	Propane Dehydrogenation
ppmvd	Parts per Million Volume, Dry
PSD	Prevention of Significant Deterioration
QA/QC	Quality Assurance and/or Quality Control
RTO	Regenerative Thermal Oxidizer
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
VOC	Volatile Organic Compound

II. Annual Emission Limits

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

Table 1. Annual Emission Limits

FIN	EPN	Description	GHG Mass Basis		TPY CO_2e[1,2]	BACT Requirements
				TPY[1]		
LD-022 A/B LD-023 A/B	LD-022 A/B LD-023 A/B	Regenerative thermal oxidizers	CO_2	31,482[3]	32,405[3]	Natural gas heat input limit of 18 MMBtu/hr per RTO on 12-month average, rolled monthly; Minimum firebox temperature of 1400 °F. See permit condition III.A.1.
			CH_4	34[3]		
			N_2O	.24[3]		
OL3-FLRA/B	OL3-FLRA/B	LDPE contribution to Olefins 3 elevated flare;	CO_2	21,900[4]	22,257	Use of Good Operating and Maintenance Practices. See permit condition III.A.3.
			CH_4	11[4]		
			N_2O	.32[4]		
LD-014	LD-014	Pellet blending silo 1	CO_2	4,168	20,400	Use of Good Operating and Maintenance Practices; See permit condition III.A.2.
			CH_4	649		
LD-015	LD-015	Pellet blending silo 2	CO_2	4,168	20,400	Use of Good Operating and Maintenance Practices; See permit condition III.A.2.
			CH_4	649		
LD-002	LD-002	Emergency generator engine	CO_2	229[5]	229[5]	Use of Good Operating and Maintenance Practices. See permit condition III.A.4
			CH_4	No Numerical Limit Established[5]		
			N_2O	No Numerical Limit Established[5]		
NG-FUG	NG-FUG	LDPE fugitives	CO_2	No Emission Limit Established[6]	No Emission Limit Established[6]	See permit condition III.A.5.
			CH_4	No Emission Limit Established[6]		
LDPE-MSS	LD-MSS	LD MSS Vessel opening	CH_4	No Emission Limit Established[7]	No Emission Limit Established[7]	See permit condition III.A.6.
Totals[8]			**CO_2**	61,948	96, 196	
			CH_4	1,363		
			N_2O	.56		

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): CO_2 = 1; CH_4 = 25; N_2O = 298
3. The GHG Mass Basis TPY limit and the CO_2e TPY limit for the RTO applies to both combined.
4. The OL-3 elevated flare (Olefins Plant Flare) emissions are for the contribution from the LDPE plant from normal operations and MSS activities.
5. These emissions are less than 0.01 TPY with appropriate rounding. The emission limit will be a design/work practice standard as specified in the permit.
6. LDPE fugitives have a PTE of 0.69 TPY CO2, 20.2 TPY CH4, and 506 TPY CO2e. The emission limit will be a design/work practice standard as specified in the permit.
7. LDPE MSS emissions to the atmosphere from vessel opening (EPN: LDPE-MSS) are estimated to not exceed 0.09 TPY CO_2e. The emission limit will be a design/work practice standard as specified in the permit.
8. 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. Emission Unit Work Practice Standards, Operational Requirements and Monitoring

1. Regenerative Thermal Oxidizers (RTOs) (EPNs: LD-022A/B and LD023A/B)

a. LDPE plant is equipped with two (2) regenerative thermal oxidizers (RTOs) each with two (2) stacks (EPNs: LD-022A/B and LD-023A/B). GHG emissions from the RTOs result from fuel gas combustion (pipeline quality natural gas) and waste gas combustion (waste gas from pellet dryer and degassing silos).
b. The RTOs are designed to combust low-VOC concentration waste gas from the pellet dryer and degassing silos and designed with a natural gas conservation system which allows the RTOs to maintain combustion temperature without use of the primary burner.
c. Waste gas will be sampled and analyzed on a quarterly basis for composition. The sampled data will be used to calculate GHG emissions to show compliance with the limits specified in Table 1
d. Permittee shall only burn pipeline quality natural gas for fuel and shall limit the natural gas heat input to 18 MMBtu/hr per RTO on a 12-month rolling average.
e. Permittee shall install fuel monitoring for the RTOs pipeline quality natural gas (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) on the RTOS, and shall:
    i. Continuously measure and record the natural gas flow to the RTOs and provide the capability to totalize the fuel flow. This may be done using a dedicated device or a computer system that collects; sums; and stores electronic data from continuous fuel flow meters.
    ii. Record the total fuel amount combusted monthly;
    iii. Permittee shall receive and maintain monthly records of the natural gas vendor's analysis and the data is of sufficient quality to yield further analysis, as required.
f. Permittee shall calibrate and perform preventative maintenance check of the fuel gas flow meters and document annually.
g. Permittee shall update monthly and maintain a 12-month rolling total of the RTO natural gas firing rate to demonstrate compliance with the heat input limits. The annual (12-month rolling total) heat input shall be calculated in accordance with:

$$\sum_{i=1}^{12}\sum_{j=1}^{k} FFj \times HHVj \times 10^{-6}$$

Where: i = Start of 12 month rolling total period (current month, previous year)
12 = End of I 2 month rolling total period (previous calendar month)
j = Combusted fuel type (1 iteration for each fuel type combusted)
k = Total number of fuels combusted during compliance month
FF = Monthly fuel now (set) for fuel j
HHV = High heating value (btu/set) for fuel j

h. The Permittee shall install and operate oxygen analyzers on the exhaust stack to continuously monitor and record oxygen concentration when waste gas is directed to the RTOs. Oxygen readings shall be reduced to an averaging period. Permittee shall reduce the oxygen readings to an averaging period of 6 minutes or less and record at that frequency.
i. Permittee shall conduct periodic maintenance at least annually or more often as recommended by the manufacturers' specifications.
j. The Permittee shall maintain the combustion temperature above the one-hour average temperature maintained in the initial stack test, as required by the TCEQ NSR Permit No. 103048, based on the minimum chamber temperature on a 15-minute average. Prior to the stack test, the minimum combustion temperature will be 1,400 ºF (760 ºC). Temperature monitoring of the RTO will ensure proper operation.
k. The Permittee shall install and maintain a temperature recording device with an accuracy of ±2.5ºC or ±0.75 percent of the temperature being measured expressed in degrees Celsius whichever is greater. Temperature measurement devices shall be calibrated, at a minimum, on a biannual basis.
l. Compliance with the annual GHG emission limit as shown in Table 1, for RTOs, shall be demonstrated on a 12-month total, rolling monthly, calculated in accordance with 40 CFR Part 98 Subpart C § 98.33(a)(3)(iii) or values for CO_2 emissions as determined by the CO_2 CEMS.
m. 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. Permitted 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 HHV (for natural gas and/or fuel gas), 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 Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1.

2. Pellet Blending Silos (EPN: LD-014 and LD-015)

a. Permittee shall install, operate and maintain degassing/stripping silos to optimize removal of all volatiles including GHGs.
b. Permittee shall install, operate, and maintain an air flow rate monitoring system on the degassing air flow.
c. Permittee shall equip each pellet blending silo exhaust with instrumentation capable of measuring the heating value (Btu/scf) of the exhaust gas at least once each hour. Permittee shall calibrate the instrumentation daily and maintain all records for five years.
d. Permittee shall record the time, date, duration, and higher heat value (HHV) in Btu/scf of the gas being exhausted for each silo (LD-014 and LD-015).The records

shall include hourly and 3 hour average HHV readings as measured by an in-line analyzer. These records shall be kept for five years, following the date of each event

e. Permittee shall adjust the rate of stripping air flow in the degassing system to maintain a HHV limit not to exceed 5 Btu/scf in the pellet blending silo exhausts on a 3-hour rolling average.
f. Permittee shall record all operational adjustments that are made to the degassing and blending system to maintain the 5 Btu/scf BACT limit.
g. Compliance with the annual GHG emission limit as shown in Table 1 shall be demonstrated on a 12-month total, rolling monthly, calculated in accordance with 40 CFR Part 98 Subpart Y § 98.253(j) or values for CO_2 emissions as determined by CO_2 CEMS.
h. 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. Permitted 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 HHV (for natural gas and/or fuel gas), converted to short tons.
i. Permittee shall calculate the CO_2e emissions on a 12-month rolling basis, based on the procedures and Global Warming Potentials (GWP) contained Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1.

3. Staged Flaring Operation (EPNs: OL3-FLR)

a. The elevated staged flare (OL3-FLRA and OL3-FLRB) shall be designed and operated in accordance with 40 CFR § 60.18 including specifications of minimum heating value of the gas being combusted, maximum tip velocity, and pilot flame monitoring or an approved alternate. An infrared monitor is considered equivalent to a thermocouple for flame monitoring purposes.
b. Permittee shall continuously monitor for flame presence at the elevated staged flare (OL3-FLR) pilots while the flare is operating.
c. The elevated staged flare (OL3-FLRA and OL3-FLRB) shall have a minimum destruction and removal efficiency (DRE) of 98% for the VOCs and a minimum DRE of 99% for the methane, based on flow rate and gas composition measurements.
d. The flares are designed for control of routine venting of emissions including maintenance, startup, and shutdown (MSS) activities, and upset conditions.
e. The elevated staged flare (OL3-FLRA and OL3-FLRB) shall only combust pipeline natural gas in the pilots during normal operations.
f. Permittee shall equip the flare header with a gas composition analyzer which will provide the gas composition at least once each hour. Permittee shall calibrate the gas composition analyzer daily and maintain all gas composition records for five years.
g. Permittee must record the time, date, duration, and heat input (HHV) in MMBtu/hr of the gas being combusted (waste gas and supplemental natural gas) for each MSS event. The records shall include hourly CH_4 emission levels as measured by an in-line

analyzer (Gas chromatograph or equivalent with volumetric stack gas flow rate) and the calculations based on the actual heat input for the CO_2, N_2O and CH_4 emissions during each MSS event. These records shall be kept for five years, following the date of each event. Process knowledge and engineering calculation are acceptable if the in-line gas analyzer is not operational during the MSS event.

h. CO_2 emissions are calculated using equation Y-1a found in 40 CFR § 98.253(b)(1)(ii)(A). CH_4 and N_2O emissions are calculated using equations Y-4 and Y-5 as found in 40 CFR Part 98 Subpart Y.
i. The on-line composition analyzer shall have an on-stream time of 95% on a 12-month rolling average basis.

4. Emergency Generator Engine (EPNs: LD-002)

a. Permittee shall use only diesel fuel to fire the engine.
b. Permittee's emergency generators engine shall be rated at 400 bhp with a fuel consumption of 7,000 Btu/hp-hr equaling a maximum heat input not to exceed 2.8 MMBtu/hr per 12-month rolling average.
c. The emission limit in Table 1 is based on the emergency generator engine operating 100 hours a year for maintenance and testing.
d. Permittee shall install and maintain an operational non-resettable elapsed time meter for the Emergency Generator
e. Permittee shall maintain a file of all records, data measurements, reports and documents related to the operation of the Emergency Generator, including, but not limited to, the following: all records or reports pertaining to maintenance performed, all records relating to performance tests and monitoring of the emergency generator; for each diesel fuel oil delivery, hours of operation; 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.
f. The engine shall meet the requirements of 40 CFR Part 60 Subpart IIII.
g. Compliance with the Annual Emission Limit shall be demonstrated on a 12-month total, rolling monthly, calculated in accordance with 40 CFR Part 98, Subpart C, § 98.33(a)(1)(i).

5. Natural Gas and Fuel Gas Piping Fugitives (EPN: NG-FUG)

a. The Permittee shall implement the TCEQ 28VHP leak detection and repair (LDAR) program for fugitive emissions for process lines in VOC service.
b. In addition, the flanges and connectors for process lines in VOC service are subject to quarterly monitoring and the associated 28VHP requirements when leaks are detected.

c. The Permittee shall implement an audio, visual, and olfactory (AVO) method for detecting leaks in natural gas piping components and fugitive emissions of methane for process lines not in VOC service but contain methane.
d. The Permittee shall:
    i. Perform the AVO monitoring weekly; and
    ii. Maintain a written log of weekly inspection identifying the operating area inspected, fuel gas and natural gas equipment inspected (valves, lines, flanges, etc.), whether any leaks were identified by audible, visual or olfactory inspections and corrective actions/repairs taken.
e. The Permittee shall take for the following action for identified leaks immediately upon detection of the leak:
    i. Tag the leaking equipment device; and
    ii. Commence repair or replacement of the leaking component as soon as practicable, but no later than 15 days after detection.

6. Maintenance, Startup and Shutdown (MSS) Activities (EPNs: LD-MSS)

a. Permittee shall comply with the following for MSS activities:
    i. Removal of all liquid from all equipment prior to opening;
    ii. Depressurize all equipment to the elevated flare, prior to opening; and
    iii. Purge all equipment with nitrogen to the elevated flare before opening equipment to the atmosphere for maintenance.
b. Permittee shall maintain a maintenance log that records time, date, and duration to verify the approved pre-opening activities are executed for each opening.

IV. Recordkeeping and Reporting

A. Records

1. In order to demonstrate compliance with the GHG emission limits in Table 1, the Permittee shall maintain the following parameters on a calendar month basis.
    a. Records of operating hours for all emission sources listed in Table 1;
    b. Records of the usage of pipeline quality natural gas and gas, being combusted in RTOs and flares, measured in accordance with the Special Conditions in Section II of this permit.
    c. Records of fuel sampling for natural gas, as required by 40 CFR § 98.34(b)(3).
2. For the EPNs listed in Table 1 and as required by this permit, the Permittee shall maintain records of the following for GHG emissions from the Equipment List (excluding fugitives): all records or reports pertaining to maintenance performed; duration of startup, shutdown; 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.

3. Permittee shall maintain records of all GHG emission units and CO_2 emission certification tests and monitoring and compliance information required by this permit.
4. 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, including but not limited to restrictions on hours of operation of the emergency generator engines.
5. 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 of an emission unit listed in the Equipment List that results in excess GHG emissions, or any other unauthorized GHG emissions occur.
6. Excess emissions indicated by GHG emission source certification testing or compliance monitoring shall be considered violations of the applicable emission limits in Table 1 for the purpose of this permit.
7. Instruments and monitoring systems required by this PSD permit shall have a 95% on-stream time on a 12-month rolling average basis.
8. 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 an initial stack sampling and other testing to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from one of the RTOs 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 for the concentration of CO_2.

For the RTOs:

1. Multiply the CO_2 hourly average emission rate determined under maximum operating test conditions by 8760 hours.

2. 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.
3. If the above calculated CO_2 emission total exceeds the tons per year (TPY) 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 CO_2 emission limit listed in Table 1.

B. Within 60 days after achieving the maximum production rate at which the affected facility shall 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 permitting authority. Additional sampling may be required by TCEQ or EPA.
C. Permittee shall submit a performance test protocol to permitting authority 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 permitting authority.
D. The LDPE plant shall operate at representative production rates during RTO stack emission testing.
E. Performance testing must be conducted using flow rates that are comparable to the normal operating flow rates.
F. The Permittee shall conduct fuel sampling in accordance with 40 CFR Part 98.
G. Permittee shall conduct compliance determinations of the RTO following the requirements in 40 CFR sections § 65.147(b)(3)(i) through § 65.147(b)(3)(iv).
H. For the RTO, the sampling site and velocity traverse point shall be selected in accordance with EPA Test Method 1 or 1A. The gas volumetric flow rate shall be measures in accordance with EPA Test Method 2, 2A, 2C, 2D, 2F, 2G, or 19. The dry molecular weight shall be determined in accordance with EPA Test Method 3, 3A or 3B. The stack gas moisture shall be determined in accordance with EPA Test Method 4. These methods shall be performed, as applicable, during each test run.
I. 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 permitting authority such records as may be necessary to determine the conditions of the performance tests.
J. The owner or operator must provide the permitting authority at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the permitting authority 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.
K. 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.

L. 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.

M. During subsequent operations of the RTOs, if the firing rate is greater than that recorded during the previous stack test, by more than 10%, stack sampling shall be performed at the new operating conditions within 120 days, 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 the permitting authority. EPA address below:

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 the permitting authority:

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