Special Conditions

Permit Numbers 6580 and PSDTX151M2

1. This permit covers only those sources of emissions listed in the attached table entitled Emission Sources - Maximum Allowable Emission Rates (MAERT), and those sources are limited to the emission limits and other conditions specified in that attached table. The annual rates are based on any consecutive 12-month period.

   If any condition of this permit is more stringent than another condition, then the more stringent condition shall govern and be the standard by which compliance will be demonstrated.

   Effective upon resumption of normal operations following the stack merger project (386344). Emissions from the dryers shall not be vented from EPNs 13A and 12A or 13A and 7A simultaneously. Emissions from the dryers shall be vented to EPN 13A during periods that the incinerator is in operation. **(3/25)**

Plant Operations, Fuel Specifications, and Work Practices

2. Tail gas not burned in the dryers shall be sent to the Incinerator EPN: 13A, or to the Flares, EPNs: Flare-1, Flare-2, Flare-3, and Flare-4. **(12/22)**

3. The incinerator shall meet the following requirements: **(3/08)**

   A. Operate with a heat recovery steam generator (HRSG) and shall operate with at least 99.3 percent destruction removal efficiency (DRE) of the hydrogen sulfide (H_2S), carbonyl sulfide (COS), and carbon disulfide (CS_2) in the tail gas.

   B. The incinerator firebox temperature shall be a minimum of 1200 °F and monitored continuously if tail gas is present. The monitoring device should be installed in the combustion chamber or immediately downstream of the combustion chamber.

   C. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, or other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: **(3/19)**

      (1) ± 0.75% of the temperature being measured expressed in degrees Celsius; or.

      (2) ± 2.5degrees Celsius.

   D. The permit holder will manually record the pertinent data to demonstrate that the incinerator is operated at the proper conditions if/when the automated recording system fails.

4. The incinerator shall not exceed, when tail gas is present, the following emission limits expressed in parts per million by volume dry (ppmvd) subject to the following specifications: **(09/20)**

Pollutant	Concentration	Averaging Time
Nitrogen oxide	39.0 @ 0% O_2	365-day rolling average
Nitrogen oxide	54.0 @ 0% O_2	7-day rolling average
Ammonia (NH_3)	10.0 @ 3% O_2	1-hour average

   Note: the 365-day rolling average and 7-day rolling average concentrations are a result of EPA Consent Decree (Civil Action No. 3:17-cv-01792-SDD-RLB).

A. A startup period is defined as when natural gas is first introduced into the incinerator and ends when the incinerator reaches a steady-state operating temperature of 1850°F with tail gas plus 15 minutes. Startup periods are excluded from the concentration limits of this Special Condition.

B. A shutdown period begins when tailgas is no longer being routed to the incinerator and the temperature is less than 1850°F. Shutdown periods are excluded from the concentration limits of this Special Condition.

C. Emissions from maintenance activities are excluded from the concentration limits of this Special Condition.

5. Routing tail-gas to a flare is authorized by this permit only during planned maintenance, start-up, or shutdown (MSS) according to Special Condition Nos. 25 and 26.

A. The flares shall operate in accordance with Title 40 Code of Federal Regulations (40 CFR) § 63.1103, §63.987, and §63.11(b).

B. The presence of a pilot and the associated monitoring will only be required when there is tail-gas being routed to the flare or when the flare is in operation.

(1) The presence of a flare pilot flame shall be monitored when in operation using a thermocouple or any other equivalent device to detect the presence of a flame.

(2) Each monitoring device shall be accurate to within manufacturer's recommendations and verified at least annually. Each monitoring device shall be verified as fully functional in accordance with the manufacturer's specifications, or other written procedures that provide an adequate assurance that the device is functioning properly.

C. The permit holder will manually record the pertinent data to demonstrate that the flare(s) are being operated at the proper conditions if/when the automated recording systems fail.

D. Upon start of operation of Flare 4 (EPN Flare-4), the allowable emission rate for Flares 1–3 (EPNs Flare-1, Flare-2, and Flare-3) shall be 0 lb/hr and 0 tpy for all pollutants. Emission limits do not apply during periods of commissioning, during which the permit holder conducts initial operational and contractual testing and tuning to ensure the safe, efficient, and reliable operation of the flare. This one-time commissioning period shall not exceed 180 days following completion of construction. To the extent that a limitation more stringent than the foregoing applies under 30 TAC Chapter 112 at any time, the more stringent limit shall govern. Any work practice or operational requirements specified in the Special Conditions with respect to any of Flares 1-3 shall be construed to equally apply to Flare 4 once it becomes operational. **(12/22)**

E. Upon completion of commissioning of Flare-4, the permit holder shall apply to TCEQ to alter or amend this permit to remove the decommissioned Flares 1-3. **(12/22)**

6. Opacity of emissions from each stack or vent, except for flares, identified as an EPN on the attached MAERT must not exceed 15 percent averaged over a six-minute period. Each flare shall have no visible emissions except for a period not to exceed five minutes in two consecutive hours. **(8/11)**

A. Visible emissions shall be recorded for the following:

(1) Incinerator Stack (EPN: 13A) and Dryer Stacks (EPN: 7A and EPN: 12A), at least every other weekday except plant holidays. For example, visibility will be recorded on Monday, Wednesday, and Friday of the first week and on Tuesday and Thursday of the second week.

(2) Visible emissions shall also be recorded at least every other weekday except plant holidays for each flare (EPNs: Flare-1, Flare-2, Flare-3, and Flare-4), when the flare is in operation.

(3) Visible emissions shall be recorded for other sources with stacks or vents which have particulate matter emissions limits in the attached MAERT at least once per quarter. **(2/14)**

B. The source shall be operating when the visible emissions observation is made.

(1) Observations shall be made at least 15 feet and no more than 0.25 miles from the emission point(s).

(2) Up to three emissions points may be read concurrently, provided that all three emissions points are within a 70-degree viewing sector or angle in front of the observer.

(3) The proper sun position (i.e., at the observer's back) shall be maintained for all emission points, even when viewing multiple emission points.

(4) Contributions from uncombined water shall not be included in determining compliance with this condition.

(5) Visible emissions observations shall be recorded when they are conducted and each observation must be recorded as either visible emissions observed or no visible emissions observed.

(6) Visible emissions observations shall be for at least 5 minutes duration for the flares and at least 15 seconds for other emission points

C. Opacity shall be determined for an emission point, except for flares, if visible emissions are observed at that emission point, by 40 CFR Part 60, Appendix A, Reference Method 9 by a certified opacity reader.

D. If visible emissions are observed at a flare according to the requirements of Special Condition Nos. 6A and 6B, the visible emissions shall subsequently be determined by 40 CFR Part 60, Appendix A, Reference Method 22 (or alternately, by Reference Method 9) for a period of at least two hours, except that the observation may be terminated as allowed by 30 TAC §111.111(a)(4)(A). **(2/12)**

E. Visible emissions of any level from the Incinerator, Dryers, or Flares shall be considered indicative of poor operation of the plant and shall be recorded by the plant operators and the problem leading to the visible emissions shall be corrected within five working days.

7. As a result of Consent Decree (Civil Action No. 3:17-cv-01792-SDD-RLB), the sulfur content of the feedstock being fed to the production units shall not exceed **2.80% on a 365-day rolling average**. At least once per calendar week, analyzing the sulfur content of the feedstock at a point just prior to where the feedstock oil is introduced into the reactors on a weight % basis, or within one Business Day of each feedstock delivery, calculating the feedstock sulfur content, through the following equation:

$$S_T =$$

Where:

S_T = Specific feedstock sulfur content, after the delivery of feedstock, weight %

V = Volume of the feedstock, prior to the delivery of feedstock, gallons

S = Sulfur content of the feedstock, prior to the delivery of feedstock, weight %

ρ = Liquid density of the feedstock, prior to the delivery of feedstock, lb/gallon

V_1 = Volume of feedstock delivered, gallons

S_1 = Sulfur content of the feedstock delivered as certified by the feedstock supplier, weight %

ρ_1 = Liquid density of the feedstock delivered as certified by the feedstock supplier, lb/gallon

The permit holder will track the SO_2 emissions as follows: **(09/20)**

A. Actual emissions of sulfur dioxide (SO_2) shall be calculated by a mass balance approach which assumes that a percentage of the sulfur in the feedstock, which is not accounted for by sulfur in the carbon black product, is converted to SO_2 in the waste gas combustion devices.

B. The SO_2 emissions from EPN: 13A shall be calculated according to the following formula:

$$SO_2 = (SI\text{-}SRB) \times (64/32) \times 0.993$$

C. The SO_2 emissions from EPNs: 7A and 12A shall be calculated according to the following formula:

$$SO_2 = (SI\text{-}SRB) \times (64/32) \times 0.98$$

D. SI is sulfur input from feedstock oil, SRB is sulfur retained in the carbon black, 64/32 is the molecular weight ratio of SO_2 to sulfur, and 0.993 and 0.98 is the conversion rate to SO_2 respective to the appropriate waste gas combustion device. The SI and SRB shall be determined by sampling as required by Special Condition No. 19. **(12/99)**

8. There shall be a daily visual inspection for fugitive leaks of particulate matter and off-gas from the baghouses and product transfer system. Inspections and repairs shall be documented in an inspection log book as they occur. All leaking components shall be recorded in the inspection log book. Every reasonable effort shall be made to repair leaking components within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair in the inspection log book. The Texas Commission on Environmental Quality (TCEQ) Executive Director may require early unit shutdown or other appropriate action based on the number and severity of leaks awaiting shutdown. **(2/12)**

9. Natural gas used in all combustion equipment shall be limited to no more than 5 grains total sulfur per 100 dry standard cubic feet on an annual average basis.

10. The following baghouses, which vent to the atmosphere, shall have maximum outlet grain loading of 0.01 grains per dry standard cubic foot. **(09/20)**

Source	EPN
Rerun	BHU1RRN
Shipping	BHU2SHIP
Vacuum	BHVACBAG

Aqueous Ammonia (NH_3)

11. The permit holder shall maintain prevention and protection measures for the NH_3 storage system. The NH_3 storage tank area will be marked and protected so as to protect the NH_3 storage area from accidents that could cause a rupture. **(3/19)**

12. The permit holder shall maintain the piping and valves in NH_3 service as follows: **(3/19)**

    A. Audio, visual, and olfactory (AVO) checks for NH_3 leaks shall be made once a day.

    B. Immediately, but no later than 24 hours upon detection of a leak, following the detection of a leak, plant personnel shall take one or more of the following actions:

    C. Locate and isolate the leak, if necessary.

        (1) Commence repair or replacement of the leaking component.

        (2) Use a leak collection or containment system to control the leak until repair or replacement can be made if immediate repair is not possible

Initial Demonstration of Compliance

13. The holder of this permit shall perform sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted to the atmosphere by the Stacks (EPNs: 7A and 12A) and the Incinerator (EPN: 13A). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

    A. The appropriate TCEQ Regional Office shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting. The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

    B. The notice shall include:

        (1) Date for pretest meeting.

        (2) Date sampling will occur.

        (3) Name of firm conducting sampling.

        (4) Type of sampling equipment to be used.

        (5) Method or procedure to be used in sampling.

    C. A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or the U.S. Environmental Protection Agency sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in D of this Special Condition shall be submitted to the TCEQ Office of Air, Air Permits Division.

    D. Air contaminants to be tested for include (but are not limited to) nitrogen oxides (NO_x), particulate matter, carbon monoxide, acetylene, SO_2, H_2S, COS, and CS_2.

    E. Sampling shall occur within 60 days after completion of construction authorized by this amended permit and at such other times as may be required by the Executive Director of the

TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office.

F. Testing shall be performed when the feedstock input rate for each unit is at the maximum usable rate for achieving the quality specifications of the carbon black being produced at the time.

G. Samples of the feedstock oil and produced carbon black from each unit shall be taken while the stack testing required in this condition is being performed. These samples shall be analyzed for sulfur content and used, together with the stack test data, to determine the DRE of reduced sulfur compounds through the incinerator. This analysis shall appear in the sampling report.

H. Two copies of the final sampling report shall be forwarded within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows: **(1/06)**

(1) One copy to the TCEQ Midland Regional Office.

(2) One copy to the U.S. Environmental Protection Agency, Region 6.

I. Emission testing requirements of this Special Condition was completed on the following dates: **(3/19)**

(1) EPN: 7A - December 1996

(2) EPN: 12A - December 1996

(3) EPN: 13A - December 1996

14. If, after completion of the initial compliance test required by Special Condition No. 13, the incinerator is demonstrated to be operating at significantly greater than 98 percent DRE of reduced sulfur, the permit holder shall submit a permit amendment application to the TCEQ. This amendment will adjust the permitted minimum reduced sulfur DRE, the SO_2 emission calculation methods, and the MAERT to levels statistically consistent with those measured during the initial compliance test. This amendment application must be submitted within 180 days after the completion of the test.

Note: The amendment application was received December 16, 1997. The appropriate changes were made to the permit. **(8/99)**

Supplemental Determination of Compliance (3/19)

15. Within 60 days after startup of the selective catalytic reduction (SCR) unit installed pursuant to the permit amendment issued in response to the PI-1 dated June 13, 2018, the holder of this permit shall perform sampling and other testing as required to establish the actual pattern and quantities of NO_x and ammonia (NH_3) being emitted to the atmosphere by the Incinerator Stack (EPN: 13A). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. This sampling shall be conducted consistent with the testing requirements of Special Condition No, 13, paragraphs A, B, C, E, F, and H. **(3/19)**

Continuous Determination of Compliance (3/19)

16. The holder of this permit shall install, calibrate, maintain, and operate a Continuous Emissions Monitoring System (CEMS) to measure and record the concentrations of NO_x from the incinerator (EPN: 13A), and diluent gases [O_2 or carbon dioxide (CO_2]

A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification of 40 CFR Part 60, Appendix B, or an acceptable alternative. If there are no applicable performance specifications in 40 CFR § 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division in Austin for requirements to be met. The CEMS shall comply with the following requirements:

B. The holder of this permit shall assure that the CEMS meets the applicable quality assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, § 5.2.3 and any CEMS downtime shall reported quarterly to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

C. The monitoring data shall be reduced to hourly average values at least once every day, using a minimum of four equally-spaced data points from each one-hour period. At least two valid data points shall be generated during the hourly period in which zero and span is performed.

D. All monitoring data and quality-assurance data shall be maintained by the source for a period of two years and shall be made available to the TCEQ Executive Director or a designated representative upon request. The hourly average data from the CEMS may be used to determine compliance with the conditions of this permit. Hourly average concentrations shall be summed to tons per year and used to determine compliance with the emission limits of this permit.

E. The appropriate TCEQ Regional Office shall be notified at least 21 days prior to any required relative accuracy test audit in order to provide them the opportunity to observe the testing.

F. If the emission monitor fails to meet specified performance, it shall be repaired or replaced as soon as reasonably possible. The replacement procedure should start immediately and any replacement parts should be installed within 30 days (any extension or deviation requires approval from the TCEQ Midland Regional Office).

17. The following requirements apply to the selective catalytic reduction (SCR) system for EPN 13A. (**01/21**)

A. If used to control pollutants other than particulate, either:

(1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or

(2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

B. The control device shall not have a bypass.

A bypass does not include authorized analyzer vents, highpoint bleeder vents, low point drains, or rupture discs upstream of pressure relief valves if the pressure between the disc and relief valve is monitored and recorded at least weekly. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when it is required to be in service.

C. Records of the inspections required shall be maintained and if the results of any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

Ammonia Continuous Demonstration of Compliance **(3/19)**

18. The NH_3 concentration from the incinerator shall be tested or calculated according to one of the methods listed below and shall be tested or calculated according to frequency listed below. Testing for NH_3 slip is only required on days when the selective catalytic reduction (SCR) unit is in operation.

    A. The permit holder may install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of NH_3. The ammonia CEMS shall be audited at least once each calendar quarter. The NH_3 concentrations shall be corrected and reported in accordance with the requirements of this permit.

    B. As an approved alternative, the NH_3 slip may be measured using a sorbent or stain tube device specific for NH_3 measurement in the 5 to 10 ppm range. The frequency of sorbent/stain tube testing shall be daily for the first 60 days of operation, after which, the frequency may be reduced to weekly testing if operating procedures have been developed to prevent excess amounts of urea from being introduced in the SCR unit and when operation of the SCR unit have been proven successful with regards to controlling NH_3 slip. These results shall be recorded and used to determine compliance with the requirements of this permit.

    C. If the sorbent or stain tube testing indicates an ammonia slip concentration exceeds 10 ppm for a consecutive one-hour period or the average of one or more sorbent or stain tube tests in an hour, the permit holder shall begin NH_3 testing by either the Phenol Nitroprusside Method, the Indophenol Method, or the EPA Conditional Test Method (CTM) 27 (with the collected sample analyzed by ammonia ion-selective electrode analysis method or ion chromatography) on a quarterly basis, in addition to the weekly sorbent of stain tube testing. The quarterly testing shall continue until such time as the SCR unit catalyst is replaced; or if the quarterly testing indicates NH_3 slip is 10 ppm or less, the Phenol-Nitroprusside/Indophenol/CTM 27 tests may be suspended until sorbent/stain tube testing again indicate 10 ppm NH_3 slip or greater. These results shall be recorded and used to determine compliance with the requirements of this permit.

    D. As an approved alternative to sorbent or stain tube testing or an NH_3 CEMS, the permit holder may install and operate a second NO_x CEMS probe located upstream of the SCR, which may be used in association with the SCR efficiency and NH_3 injection rate to estimate NH_3 slip. This condition shall not be construed to set a minimum NO_x reduction efficiency on the SCR unit. These results shall be recorded and used to determine compliance with the requirements of this permit.

    E. As an approved alternative to sorbent or stain tube testing, NH_3 CEMS, or a second NO_x CEMS, the permit holder may install and operate a dual stream system of NO_x CEMS at the exit of the SCR. One of the exhaust streams would be routed, in an unconverted state, to one NO_x CEMS, and the other exhaust stream would be routed through a NH_3 converter to convert NH_3 to NO_x and then to a second NO_x CEMS. The NH_3 slip concentration shall be calculated from the difference between the two NO_x CEMS readings (converted and unconverted). These results shall be recorded and used to determine compliance with the requirements of this permit.

    F. Any other method used for measuring NH_3 slip shall require prior approval from the TCEQ.

Sampling and Recordkeeping Requirements

19. The permit holder shall analyze the feedstock oil and carbon black on a regular basis to determine the sulfur content. This sampling shall occur at least weekly for the first six months following the

completion of construction. If the first six months of data do not show a significant variation in weekly values, then the minimum sample frequency may decrease to once per month. The TCEQ Regional Director will determine if there is significant variation in the data. In addition to the regular sampling required above, sampling shall be conducted when a new supply of feedstock oil enters the plant.

A. This sampling shall be used to demonstrate compliance with the hourly and rolling average annual emission limits for SO_2. At the end of each sampling period, the permit holder must calculate the total SO_2 emitted for the period and the maximum hourly SO_2 emission rate for the period, which will be reported in units as expressed in the MAERT.

B. Feedstock sampling for sulfur content in accordance with this Special Condition is authorized to emit (EPN: MSSILE) volatile organic compound (VOC) emissions limited to <0.001 lb/sampling event. **(12/22)**

C. In-situ manual sampling of carbon black for sulfur content in accordance with this Special Condition is authorized to emit (EPN: MSSILE) particulate matter emissions limited to 0.1598 lb PM per ton of material sampled and 0.0756 lb PM_{10} per ton of material sampled for each carbon black production unit. **(12/22)**

D. An evaluation of the emissions factors developed for each of the activities listed in Special Condition Nos. 19.B. and 19.C. will be conducted and documented by the permit holder within 18 months of the issuance of this amendment, and if necessary, updated by permit alteration or amendment, as appropriate. **(8/11)**

20. The holder of this permit shall make and maintain records of:

A. The production of carbon black from each carbon black production unit in pounds per hour (lbs/hr) and tons per year (TPY). This information will be treated as confidential by the TCEQ.

B. The SI rates in lbs/hr to the carbon black units during production of the carbon black recorded in accordance with Special Condition No. 20A. The SI rates shall be determined by using weight percent sulfur in the oil as determined by Special Condition No. 19.

C. The SRB rate in lbs/hr for each carbon black production unit for the carbon black that is recorded in accordance with Special Condition No. 20A. The SRB rates shall be determined by using the weight percent sulfur in the carbon black as determined by Special Condition No. 19.

D. The maximum hourly SO_2 emission rate and total amount of SO_2 emitted for each sulfur sample period described in Special Condition No. 19. The contribution to SO_2 emissions from each carbon black production unit shall be determined by the procedure defined in Special Condition No. 7.

E. A running consecutive 12-month total of SO_2 emissions from EPNs: 7A, 12A, and 13A in TPY, based on the calculations from Special Condition Nos. 19 and 20D. **(8/99)**

F. Inspection records and records of corrective actions taken as a result of the maintenance program described in Special Condition No. 8.

G. A record of the visible emissions or opacity observations according to the schedule specified in Special Condition No. 6 and records of all opacity episodes and actions taken to correct the problems leading to the opacity. **(8/11)**

H. All periods when tail gas is being routed to the flare, and all such periods during which the flare pilot flame is absent. **(3/07)**

I. A copy of this permit, which shall be kept at the plant site.

J. Records of planned MSS activity required in Special Condition Nos. 26 through 28. **(8/11)**

K. Records of all work practices developed in accordance of Special Condition No. 29. **(8/11)**

L. Operating records shall be kept for each period of operation in which reactor emissions are routed to EPN: RVS. For each event that emissions are routed to EPN: RVS, the records shall include the start and end date and time, and the duration of emissions in hours. **(8/11)**

M. Records of the Incinerator firebox temperature to show compliance with Special Condition No. 3B. **(8/11)**

These records shall be maintained on a rolling five-year retention basis, updated at least monthly, and made immediately available upon request to the Executive Director of the TCEQ or a designated representative or any air pollution control program having jurisdiction. The copy of the permit required by this Special Condition shall be kept for the life of the permit. **(8/11)**

21. Within 60 days of completion of construction, the holder of this permit shall submit documentation to the TCEQ Midland Regional Office which demonstrates that the facility is in compliance with the recordkeeping conditions of this permit. This documentation shall contain, at a minimum, copies of sampling records of the sulfur in the feedstock oil, copies of sampling records of the sulfur retained in the carbon black product, results of required calculations for hourly and projected consecutive 12-month SO_2 emissions, daily and projected consecutive 12-month carbon black production rates, proposed forms to be used to demonstrate compliance with the recordkeeping requirements of this permit, and a review of compliance with the special conditions of this permit. Any request for extension in time for submitting the required information shall be submitted to the TCEQ Midland Regional Office. **(3/07)**

Note: This documentation was completed December 1998. **(8/99)**

Initial Demonstration of Compliance for Flares

22. The holder of this permit shall perform sampling and other testing as required to establish the hydrogen content (and the heat content if the hydrogen content is less than 8 percent) of the flare gas, and the flare tip velocity of the flares (EPNs: Flare-1, Flare-2, and Flare-3). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. The required testing was performed on September 12-14, 2006. **(12/22)**

A. The appropriate TCEQ Regional Office shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting. The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

B. The notice shall include:

(1) Date for pretest meeting.

(2) Date sampling will occur.

(3) Name of firm conducting sampling.

(4) Type of sampling equipment to be used.

(5) Method or procedure to be used in sampling.

C. A written proposed description of any deviation from sampling procedures specified in 40 CFR § 60.18(f) or TCEQ or Environmental Protection Agency sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

D. Sampling shall occur within 90 days after the issuance of this amended permit and at such other times as may be required by the TCEQ Executive Director or Midland Regional Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office.

E. Testing shall be performed when the feedstock input rate for each unit is at the maximum usable rate for achieving the quality specifications of the carbon black being produced at the time.

F. Two copies of the final sampling report shall be forwarded within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

(1) One copy to the TCEQ Midland Regional Office.

(2) One copy to the U.S. Environmental Protection Agency, Region 6

Maintenance, Start-Up, or Shutdown (MSS)

23. Planned MSS activities and related emissions are authorized for the sources and activities described in and limited by the Special Conditions and MAERT of this permit. No other MSS activities and emissions are authorized by this permit for the facilities listed on the Special Conditions or the MAERT. **(8/11)**

24. The holder of this permit shall notify the TCEQ Midland Regional Office by telephone, electronic mail, or in writing at least 24 hours before beginning any planned MSS activity which requires the use of one or more flares. **(8/11)**

25. The permit holder shall permanently cease operation of the flare(s), except in the limited instance of the following: **(12/22)**

A. Malfunction that satisfies the requirements of an Affirmative Defenses.

B. Inspection at the Alternative Combustion Technology.

Inspection of the Alternative Combustion Technology means an outage to inspect and maintain the Incinerator, or its associated co-generation equipment, including the waste heat boiler or turbine which generate electricity from steam, the total for all outages annually at the facility shall not exceed 336 hours in duration and may not be conducted more frequently than once a year, except that no more than once every five years, there shall be only one outage that may exceed 336 hours but shall not exceed 744 hours in duration, in all cases, on a 365-day block-basis starting with the Date of Continuous Operation which is June 30th, 2020. (e.g., if the first day included in the first 365-day block is June 30, 2020, then the first day included in the second 365-day block is June 30, 2021) as reasonably necessary to maintain the equipment in accordance with good engineering and maintenance practices.

C. Force Majeure.

D. During operation of any Flare in accordance with this, the emissions from the Flare shall not be included in the calculation of any Emission Limits but shall be included in the calculation of any NO_X Caps (25 tons/yr (annually) and 55 tons/yr (every 5 years), 365-day rolling average).

In response to any of these of instances, the permit holder shall operate the Flare only as necessary to comply with the carbon black MACT standard (40 C.F.R. § 63.1103(f)), minimize operation of the Flare to the extent possible, and comply with applicable law at all times the Flares are in operation.

26. This permit authorizes the emissions from the planned maintenance, startup and shutdown (MSS) activities listed in this Special Condition. Emissions from activities listed in this Special Condition shall be considered to be equal to the potential to emit represented in the permit application (Form PI-1 dated December 21, 2009). **(12/22)**

Inherently Low Emission Activities reporting to emission point MSSILE

Activity	VOC	PM
Aerosol Cans	X	
Orifice Changeout	X	
Recasting furnace refractory		X
Carbon Black Oil Feedstock Sampling	X	
In-situ Carbon Black Sampling		X

27. A reactor shall not be vented to EPN: RVS when feedstock oil or any fuel other than pipeline quality sweet natural gas is present in the reactor. **(8/11)**

28. Reserved **(12/22)**

29. Reserved **(12/22)**

30. Reserved **(12/22)**

31. Reserved **(12/22)**

Incorporated EPA Consent Decree (Civil Action No. 3:17-cv-01792-SDD-RLB) Requirements (09/20)

32. The NOx emissions from heat load operations, startups, and shutdowns from reactors, dryers, and combustors, shall not exceed **50 tons on a 365-day rolling average**. **(12/22)**

A. Heat load operation is defined as the operation of any carbon black reactor, dryers, or combustors, under any of the following conditions: **(12/22)**

(1) at a reactor, when there is no oil feed, but only natural gas and combustion air supplied to the reactor burner, and the reactor is not manufacturing carbon black and generating Tail Gas, including, but not limited to, during periods of Startup and Shutdown,

(2) at a reactor, during the periods either prior to or at the conclusion of Process System Operation, each of which shall be as short as practicable and shall not exceed 15 minutes, when transitioning between

(a) an operational mode in which oil, natural gas, and combustion air are all fed to the reactor burner and the reactor is manufacturing carbon black and generating Tail Gas, and

(b) an operational mode, including, but not limited to, during periods of Startup and Shutdown, in which no oil but only natural gas and combustion air are supplied to the reactor, or

(3) at a dryer combustor, when only natural gas and combustion air (and not Tail Gas generated by a reactor during Process System Operations) are fed to the dryer combustor, including, but not limited to, during periods of Startup and Shutdown

33. The permit holder shall follow the following best management practices to minimize fugitive carbon black emissions. **(09/20)**

A. All operations and maintenance personnel shall be trained to both recognize leaks and spills of carbon black, and to report them to the proper plant personnel for response. Visual observation of the physical condition of plant process equipment that conveys, stores, loads, unloads, and packages carbon black, including at connection points between equipment and/or sections of piping, and of the physical condition of containers and bags used to package carbon black, shall be part of the daily responsibilities of the operations and maintenance personnel to help ensure that potential leaks are addressed before they occur.

B. All carbon black product shall be stored in tanks, silos, or closed bags. No carbon black product shall be stored in open piles.

C. All product and off-quality carbon black shall be shipped off-site in closed bags, sealed cardboard boxes (for landfill), or sealed rail cars, hoppers, or bulk transport trucks.

D. All process equipment at the Facilities shall be designed, operated, and maintained in a manner intended to minimize leaks and spills of carbon black and fugitive particulate emissions. In addition, the Facilities shall develop and implement practices to collect carbon black dust otherwise emitted from product conveyance, packaging, and storage operations, and either recycle it back into the manufacturing process or convey it to a packaging system. Where practicable, the operation of such equipment, including carbon black product conveyors, elevators, and packing units, shall be conducted under negative pressure and served by vacuum systems that collect carbon black.

E. All process equipment shall be located either indoors or in outdoor areas that have paved, caliche, or rock/gravel ground surfaces.

F. Events that trigger the PM Early Warning System shall be handled pursuant to the protocol in Appendix D (PM Early Warning System) of this Consent Decree. Leaks and spills of all carbon black that are otherwise identified shall be investigated and addressed (cleaned up and repaired) either immediately upon discovery or as quickly as practicable. When immediate repair or isolation is not feasible, the actions taken to complete the repair shall be documented. Incident reports for spills or leaks of carbon black shall be created to document cause and corrective actions.

G. Special precautions shall be taken during maintenance actions to minimize particulate emissions from the equipment on which maintenance is being performed. Prior to conducting maintenance or baghouse bag replacement on equipment that is prone to accumulation of carbon black on its interior surfaces, including, but not limited to, on the Main Bag Filters, Process Filters, Purge Filters, elevators and conveyors, and storage tanks and silos, the responsible maintenance personnel shall identify and take steps necessary to minimize the generation of particulate emissions at the equipment being maintained during the maintenance or bag replacement activity. The specific approaches taken to minimize particulate emissions during maintenance or bag replacement shall be developed on a case-specific basis based on the judgment of the maintenance personnel and shall include, as relevant, but need not be limited to, activities such as the following:

(1) vacuuming carbon black from the equipment prior to beginning the maintenance,

(2) vacuuming or washing down the equipment when an appropriate stage in the maintenance activity has been reached,

(3) if units are equipped with vents, closing vents during maintenance to prevent drafting of PM, except when Defendant conducts a safety or hazard analysis and concludes in writing that closing the vent would create an unsafe or unhealthy work atmosphere, and

(4) sealing filter bags removed from Main Bag Filters inside plastic bags.

H. Accessible floor and/or ground surfaces in the carbon black production areas shall be swept or washed as needed in order to minimize particulate emissions attributable to leaks or spills of carbon black that are not otherwise identified and/or addressed during the daily visual assessments conducted pursuant to Paragraph 34 of this Consent Decree. All material collected through these actions shall either be incorporated into the production process/used as product for commercial distribution or properly disposed of in accordance with applicable regulatory standards.

34. The applicant shall maintain the Early Warning Systems on the following bagfilters**: (09/20)**

Source	EPN	Action Level (pico/Amps)
Unit 1 Primary Bagfilter	13A and 7A	40
Unit 2 Primary Bagfilter	13A and 7A	40
Unit 3 Primary Bagfilter	13A and 12A	60
Unit 1 Dryer Exhaust Bagfilter	DF1A and DF-1B	40
Unit 2/3 Dryer Exhaust Bagfilter	DF-2	40

35. The permit holder shall follow the following procedures for these Early Warning Systems **(09/20)**

A. The applicant shall operate each PM Early Warning System at all times of Heat Load Operation and Process System Operation, except for during system breakdowns, repairs, maintenance, calibration checks, and zero and span adjustments of the applicable PM Early Warning System. For purposes of demonstrating compliance with the requirements, the minimum degree of data availability shall be at least 90 percent for the first three years following the Effective Date of the Consent Decree of June 5, 2018, and 95% thereafter, based on a quarterly average of the operating time of the emission unit or activity being monitored.

B. In the event that an alarm is triggered for any PM Early Warning System, the permit holder shall investigate the cause of the alarm as expeditiously as practicable by performing each of the following tasks:

(1) Reviewing the data output for the relevant PM Early Warning System to determine whether the alarm corresponds to an actual exceedance of the alarm action level.

(2) If review of the data confirms an exceedance of the alarm action level, Defendant shall conduct a visual assessment of the equipment monitored by the pertinent PM Early Warning System to determine if there are any detectable visual emissions. Defendant shall also conduct an appropriate equipment inspection to seek to identify the source of the alarm.

(3) If the visual assessment or other observations identify a process, equipment or other condition(s) causing an increase in PM emissions that may be responsible for triggering the relevant alarm, determining whether the relevant equipment can be

isolated to reduce the excess PM emissions below alarm levels, without requiring a Process System Shutdown.

(4) If the relevant equipment can be isolated without requiring Process System Shutdown, isolating and repairing such equipment prior to returning it to service.

(5) If the relevant equipment cannot be isolated without requiring Process System Shutdown, such as if there is a leak from a dryer, a broken bag in a baghouse, or a Malfunction of any other component that cannot be isolated to the extent necessary to prevent continued excess PM emissions, shutting down the relevant equipment and only returning it to service after it has been repaired.

(6) If the triggering event has not been identified and resolved within 24 hours, having a Method 9 Trained Observer

(a) conduct a visual assessment of the equipment monitored by the pertinent PM Early Warning System to determine if there are any detectable visual emissions, and,

(b) in the event that any such visible emissions are observed, conduct a six-minute observation in accordance with Method 9 to determine if opacity levels are greater than 20%, and

(c) if opacity levels are greater than 20%, conduct a six-minute observation in accordance with Method 9 once every 8 hours (during daylight hours) until visible emissions are less than 20% of opacity levels.

(d) If, after investigation, the source of any elevated PM emissions cannot be identified, shutting down the subject equipment as soon as practicable to prevent further alarms and to minimize emissions and ensure the safety of employees and the community and only returning the equipment to service after the source of the excess emissions has been identified and repaired.

C. Notwithstanding the foregoing, to the extent that recorded information for the relevant PM Early Warning System indicates that operations have returned to normal operating ranges, below levels triggering an alarm condition, the permit holder is not otherwise obligated to continue with implementation of the steps listed above and may continue operation of the relevant equipment.

D. The permit holder shall maintain a record of any event that triggers the alarm for any PM Early Warning System.

E. The permit holder shall perform routine maintenance of each PM Early Warning System installed in accordance with any manufacturer recommendations and the following requirements:

(1) On at least a semiannual basis, the permit holder shall visually inspect and clean each sensor within the PM Early Warning System, in accordance with manufacturer recommendations, to ensure continued effective operation of the PM Early Warning System.

(2) On at least an annual basis, the permit holder shall comprehensively inspect the PM Early Warning System and make any necessary repairs.

F. The PM Early Warning System shall not be required to quantitatively measure PM emissions.

36. The site will meet a NO_x cap (Flares only) of **25 tons/yr (**annually, during minor cogen unit outages) and **55 tons/yr** (every five years, during major cogen unit outage) on a 365-day block basis starting

on June 30, 2020 (i.e., the first day included in the first year block is June 30, 2020, and the first day included in the second 365-day block is June 30, 2021). The NO_x emission factors for Flares 1, 2, and 3, in lbs/hr are 8.3, 6.7, and 5.6, lbs/hr, respectively. The NO_x emission factor for Flare 4 is 20.6 lbs/hr. These factors will be used to calculate the NO_x emissions from the flares, and they are the lbs/hr limits that are noted in the MAERT of the facility's NSR permit dated December 20, 2022. **(12/22)**

37. Reserved. **(01/21)**

38. The following conditions have been added or modified to the permit to comply with Consent Decree (Civil Action No. 3:17-cv-01792-SDD-RLB): **(01/21)**

4	7	25	32	33
34	35	36	37	

Additional Authorizations (3/19)

39. The following facilities and activities at the site are currently authorized under 30 TAC Chapter 106 and Chapter 116. This list is not intended to be all inclusive and can be altered at the site without changing this permit.

Facility Description	EPN	Registration Number Date	Rule Citation
Manual application (hand wipe cleaning) of cleaning solvents containing less than 1% VOC	Sitewide	De minimis	116.119(a)(1)
Aerosol can puncturing equipment	Sitewide	De minimis	116.119(a)(1)
Aerosol solvent and lubricants usage less than 64 oz. per day	Sitewide	De minimis	116.119(a)(1)
Totally Enclosed dry abrasive blast cleaning cabinets	Sitewide	De minimis	116.119(a)(1)
Application of coatings less than 100 gal per year	Sitewide	De minimis	116.119(a)(1) 116.119(a)(2)
Comfort air conditioning and ventilation systems	Sitewide	De minimis	116.119(a)(1)
Natural Gas Fired Feedstock Oil Preheaters 1 and 2	14 and 15	NA 5/05/1976	106.183 SE 7
Welding/Cutting/Brazing Equipment	Sitewide	NA	106.227
Sanding and grinding using hand	Sitewide	NA	106.265

held and manually operated machinery			
Remote reservoir parts washers	Sitewide	NA	106.454
Organic and Inorganic liquid loading and unloading	Sitewide	NA	106.472
Carbon Black Oil Tanks	CBO-1 CBO-2 CBO-3 CBO-4	NA	106.472
Standby Generators	Generators 1, 2, 3	NA	106.511

Date: March 17, 2025