Special Conditions

Permit Number 4180A

Emission Standards

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emissions Rates," and those sources are limited to the emissions limits and other conditions specified in that attached table.

   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 shall be determined.

2. The lignite handling facility shall comply with all requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for Coal Preparation Plants in Title 40 Code of Federal Regulations Part 60, Subparts A and Y (40 CFR Part 60, Subparts A and Y). **(3/00)**

3. The Boiler Facility (Emission Point No. [EPN] 6) shall comply with all requirements of EPA regulations on Standards of Performance for New Stationary Sources promulgated for Fossil Fuel-Fired Steam Generators for which Construction is Commenced after August 17, 1971, in 40 CFR Part 60, Subparts A and D.

4. Emissions from the Boiler, EPN 6, shall not exceed the emission limitation listed below, except during periods of routine maintenance, start-up, or shutdown (MSS) or as otherwise allowed by law. Emissions during MSS activities shall be minimized by employing the work practices identified in Special Condition No. 16 **(4/13)**

   A. Nitrogen oxides (NO_x): 0.5 pound/million British thermal unit (lb/MMBtu) on a one-hour average.

   B. Sulfur dioxide (SO_2): 1.2 lb/MMBtu based on a three-hour rolling average.

   C. Standard Permit Registration Number 54118, which authorized the installation of an overfire air system as well as an increase in the emission rate of carbon monoxide from 1,640 to 3,664 tons per year, is included in these special conditions by reference. **(3/09)**

Operational Limitations and Work Practices

5. Fuel fired in the utility boiler, EPN 6, is limited to the following:

Primary Fuel - lignite
Supplemental Fuel - fuel oil, used oil, and waste oil

The quantity of on-site generated waste materials fired in EPN 6 (either directly into the boiler ports or mixed with lignite as it is conveyed to the boiler) per calendar year is limited as follows:

Used Oil and Waste Oil - 25,000 gallons
Rags/absorbents - 7,000 pounds

Quantities above this amount will require a permit amendment. Records shall be maintained of usage rates. **(8/04)**

6. The SO_2 scrubber bypass was removed during the Spring Outage, 2005. **(3/09)**

7. The boiler firing rate is limited to 4972.5 MMBtu/hour (three-hour average). **(8/04)**

8. As represented by the applicant, the following shall occur with regard to the lignite handling system:

   A. The equipment identified in the application may handle only lignite, limestone, and fly ash in addition to flue gas desulfurization waste product, which shall be disposed of properly according to Texas Commission on Environmental Quality (TCEQ) Solid Waste Registration Number 31434.

   B. A foam suppression system consisting of a surfactant mixed with water and air, which is sprayed through high-pressure nozzles onto the lignite, will be installed and operated at the conveyor to the telescopic chute, at the telescopic chute, at the inlet to each of the crushers, and at the bottom of Conveyor No. 9 under the crushers.

   C. Opacity of emissions from any transfer point on belt conveyors must not exceed 10 percent, averaged over a six-minute period. If opacity exceeds 10 percent as determined by Method 9 of 40 CFR Part 60 Appendix A, additional controls may be required. Opacity of emissions from transfer points on the belt conveyors shall be monitored, by a certified observer, for at least one 6-minute period in accordance with Method 9 of 40 CFR Part 60, Appendix A, on a frequency of once per month. Any opacity readings in excess of 10 percent shall be reported as a deviation. **(3/09)**

D. A spray dust suppression system consisting of water mixed with surfactant, which is sprayed through high-pressure nozzles onto the lignite, must be installed and operated at the lignite truck unloading hopper. The lignite truck unloading hopper is the initial emission point covered by this permit. The lignite mine is addressed by Railroad Commission of Texas Permit Number 11D, "San Miguel Lignite Mine."

E. Limestone shall be handled wet at all times, and its discharge into the transfer tower and storage bins shall be enclosed, with the exception of one unenclosed limestone storage pile that may remain on-site and be actively worked for up to 45 days per year. **(4/13)**

F. Fly ash from the precipitator serving the boiler shall be stored in a silo which is kept under negative pressure and enclosed. Fly ash from the silo may be transferred to trucks only through a dustless conveying system. Emissions from the loading of the trucks shall be vented back to the silo via a vacuum vent line. All other fly ash on-site shall be handled wet at all times. **(3/09)**

G. All conveyors shall be partially covered, as represented in the application, with fiberglass or metal covers. The covers are considered abatement equipment and shall be kept in good repair at all times when in use.

H. As necessary to achieve maximum control of dust emissions, facility roads shall be sprinkled with water and/or chemicals.

I. The lignite truck unloading hopper and dust suppression system shall be maintained to ensure efficient operation.

J. All stockpiles shall be sprinkled with water as necessary, and to the extent practicable, using water trucks in order to minimize dust emissions. **(8/04)**

Initial Demonstration of Compliance

9. Unless already conducted, the holder of this permit shall perform stack sampling and other testing as required to establish the actual quantities of air contaminants being emitted into the atmosphere from the lignite fueled boiler. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual. Any deviations from those procedures must be approved by the Executive Director of the TCEQ prior to sampling. The TCEQ Executive Director or designated representative shall be afforded the opportunity to observe all such sampling.

The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at the permit holder's expense.

A. The TCEQ San Antonio 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 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, and
(6) Procedure used to determine unit loads during and after the sampling period.

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. A written proposed description of any deviation from sampling procedures specified in permit conditions, TCEQ sampling procedures or EPA 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 this condition shall be submitted to the TCEQ Austin Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for New Source Performance Standards testing which must have EPA approval shall be submitted to the TCEQ in Austin.

B. Air emissions shall be tested while firing at full load under ambient conditions which could reasonably be expected to result in the maximum firing rate and the worst-case or maximum mass emission rates. Air contaminants to be sampled and analyzed while at full load include (but are not limited to) NO_x, carbon dioxide (CO_2), carbon monoxide (CO), SO_2, particulate matter equal to or less than 10 microns in diameter, and opacity.

C. Sampling shall occur within one year of the date of this permit amendment. Requests for an extension of this schedule shall be made in writing to and approved by the Director of the TCEQ San Antonio Regional Office. Additional sampling shall occur as may be required by the TCEQ or EPA.

D. Within 60 days after the completion of the testing and sampling required herein, a copy of the sampling reports shall be distributed as follows:

One copy to the TCEQ San Antonio Regional Office.

E. The initial demonstration of compliance was completed in November 2000. **(8/04)**

Continuous Demonstration of Compliance

10. The permit holder shall calibrate, operate, and maintain continuous emissions monitoring system (CEMS) under 40 CFR Part 75 to measure and record opacity and the in-stack concentration of SO_2, NO_X, CO, and either oxygen or CO_2. In addition, the permit holder shall operate a continuous opacity monitoring system (COMS) in accordance with 40 CFR § 60.13 with a minimum averaging frequency of six times per minute. Opacity readings in excess of 20 percent, other than authorized opacity exceedance due to planned MSS activities, shall be reported as a deviation. **(4/13)**

Relative accuracy tests, linearity checks, calibration error, cycle time, and other testing shall be conducted as required under 40 CFR Part 75. The accuracy of the CEMS shall be calculated as described in 40 CFR Part 75 and summary results included in the excess emission and monitoring system performance reports submitted to the Executive Director of the TCEQ each quarter. **(3/00)**

Recordkeeping/Reporting

11. The following records shall be kept at the plant for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ or any air pollution control agency with jurisdiction. **(8/04)**

A. A copy of this permit.

B. The permit amendment application dated September 30, 2003, and subsequent representations submitted to the TCEQ.

C. A complete copy of the testing reports and records of the initial performance testing completed pursuant to Special Condition No. 9 to demonstrate initial compliance.

D. Stack sampling results or other air emissions testing (other than CEMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.

12. If based on the Part 75 CEMS, the average NO_x, CO, or SO_2 stack outlet emission rate exceeds the maximum allowable emission rates for more than one hour (three-hour average for SO_2), the holder of this permit shall investigate and determine the reason for the exceedance and, if needed, make necessary repairs and/or adjustments as soon as possible. Mass emission rates will be calculated using Part 75 methods or consistent with Part 75. **(3/00)**

13. If the NO_x, CO, or SO_2 emission rate exceeds the emission rate in the maximum allowable emission rates table for more than 24 consecutive hours, the permit holder shall notify the TCEQ San Antonio Regional Office either verbally or with a written report detailing the cause of the increase in emissions and all efforts being made to correct the problem. This does not alter the reporting requirements under 30 TAC §§ 101.6 or 101.7. **(3/00)**

14. The following records shall be maintained by the holder of this permit for rolling 12-month periods, and data shall be retained for at least five years following the date the data are obtained. All records required in this permit shall be made available at the request of personnel from the TCEQ or any air pollution control agency with jurisdiction. **(6/04)**

A. Pursuant to Special Condition No. 5, records shall be kept on-site specifying the quantities of on-site generated waste materials fired in boiler;

B. All records required under 40 CFR Part 75 including records of CEMS accuracy and other testing pursuant to Special Condition No. 10;

C. Records of measured opacity and in-stack pollutant concentrations pursuant to Special Condition No. 10;

D. Operating and maintenance records for the following systems:

(1) Scrubbing system,
(2) Lime slurry production and feeding system,
(3) Electrostatic precipitator, and
(4) Foam suppression systems.

E. Daily quantities of lignite and daily heating value of lignite delivered to the boiler as needed to demonstrate compliance with the maximum firing rate specified in Special Condition No. 7. **(8/04)**

F. Quantities of supplemental fuels delivered to the boiler during start-up as specified in Special Condition No. 5. **(8/04)**

G. Calculated mass emission rates, supporting calculations, and corrective actions taken, if any, under Special Condition No. 12.

Routine Maintenance, Startup, and Shutdown

15. This permit authorizes the emissions from the planned maintenance, startup, and shutdown (MSS) activities listed in Attachment A, Attachment B, or the MAERT attached to this permit. Attachment A identifies the inherently low emitting (ILE) planned maintenance activities that this permit authorizes to be performed. Attachment B identifies the planned MSS activities that are non-ILE planned maintenance activities that this permit authorizes to be performed. **(4/13)**

16. Opacity greater than 20 percent and other products of combustion, including emissions identified in Special Condition No. 4, from the electric generating facility (EGF) utility boiler, EPN 6, are authorized when the permit holder complies with the MSS duration limitations and other applicable work practices identified below. **(4/13)**

    A. Emissions during planned startup and shutdown activities shall be minimized by limiting the duration of operation in planned startup and shutdown mode as follows:

        1. A planned startup of the EGF, EPN 6, is defined as the period that begins when the induced draft fans start operation and ends when the utility boiler reaches the lowest sustainable load (LSL) and maintains that load (or greater load) for 60 consecutive minutes and ESP operations have been fully optimized.

            (a) A planned startup of the EGF shall not exceed 2,880 minutes, except as allowed in Special Condition No. 16 (A)(1)(b).

            (b) An extended planned startup is defined as a startup that lasts more than 48 hours. The total amount of incremental time the extended startups exceed 48 hours shall not exceed 600 hours per unit on an annual calendar year basis.

2. A planned shutdown of the EGF, EPN 6, is defined as the period that begins when load drops below LSL following the permit holder's request to dispatch for a shutdown and ends when the average lower drum metal temperature reaches 200 degrees Fahrenheit (F) or when the induced draft fans are removed from service by the plant operators.

   (a) A planned shutdown of the EGF shall not exceed 1,440 minutes, except as allowed in Special Condition No. 14 (A)(2)(b).

   (b) An extended planned shutdown is defined as a shutdown that lasts more than 24 hours. The total amount of incremental time the extended shutdowns exceed 24 hours shall not exceed 600 per unit hours on an annual calendar year basis.

B. Emissions during planned startup and shutdown activities shall be minimized by employing the following work practices. The EGF, EPN 6, will comply with the boiler and ESP manufacturer's operating procedures or the permittee's written Standard Operating Procedures manual during planned MSS, and will operate in a manner consistent with those procedures to minimize opacity by placing the ESP into service as soon as practical during planned startups once the prime inlet air heater is between 250 and 350 degrees F and removing the ESP from service as late as possible during planned shutdowns, but not longer than the durations identified in Special Condition No. 16 (A). The manufacturer's operating procedures or written Standard Operating Procedure manual shall be located on-site and available to the TCEQ regional investigator.

C. Periods of opacity greater than 20 percent from EPN 6 from planned online and offline maintenance activities identified in Attachment A or B is authorized for no more than 535 hours in a calendar year.

D. The permit holder shall keep records to identify periods of planned MSS, the opacity measured by the COMS for the duration of the planned MSS activities, and the work practices in Special Condition No. 16 (B) are followed during the planned MSS activities for the purpose of demonstrating compliance with this permit special condition.

E. For periods of maintenance, startup, and shutdown other than those subject to Paragraphs A - C of this condition, 30 TAC § 111.111, 111.153, and Chapter 101, Subchapter F apply.

17. No vacuum pump on a vacuum truck that is used to move solids (such as ash) during planned maintenance activities shall be operated unless the vacuum system exhaust is routed to a filtering system. **(4/13)**

18. Vacuum trucks that are used to move liquids with a vapor pressure greater than 0.5 psia during planned maintenance activities shall utilize submerged loading. **(4/13)**

19. Compliance with the emissions limits for planned MSS activities identified in the MAERT attached to this permit may be demonstrated as follows. **(4/13)**

    A. For each pollutant emitted during ILE planned maintenance activities, the permit holder shall annually confirm the continued validity of the estimated potential to emit represented in the permit application for all ILE planned maintenance activities. The total emissions from all ILE planned maintenance activities (See Attachment A) shall be considered to be no more than the estimated potential to emit for those activities that are represented in the permit application.

    B. For each pollutant emitted during non-ILE planned MSS activities (See Attachment B) whose emissions are measured using a CEMS, as per Special Condition No. 20A, the permit holder shall compare the pollutant's short-term (hourly) emissions during planned MSS activities as measured by the CEMS to the applicable short-term planned MSS emissions limit in the MAERT.

    C. For each pollutant emitted during non-ILE planned MSS activities (See Attachment B) whose emissions occur through a stack, but are not measured using CEMS as per Special Condition No. 20A, the permit holder shall determine the total emissions of the pollutant through the stack that result from such non-ILE planned MSS activities in accordance with Special Condition No. 20B.

    D. For each pollutant emitted during non-ILE planned MSS activities (See Attachment B) whose emissions do not occur through a stack, the permit holder shall do the following for each calendar month.

        (1) Determine the total emissions of the pollutant from such non-ILE planned MSS activities in accordance with Special Condition No. 20B.

        (2) Once monthly emissions have been determined in accordance with Special Condition No. 19D(1) for 12 months after the MSS permit amendment has been issued, the permit holder shall compare the sum of the rolling 12-month emissions for the pollutant for all non-ILE planned MSS activities and the annual potential to emit for the pollutant from all ILE planned MSS activities (as referenced in Special Condition 19A), to the annual emissions limit for the pollutant in the MAERT.

20. The permit holder shall determine the emissions during planned MSS activities for use in Special Condition No. 19 as follows. **(4/13)**

    A. For each pollutant whose emissions during normal facility operations are measured with a CEMS that has been certified to measure the pollutant's emissions over the entire range of a planned MSS activity, the permit holder shall measure the emissions of the pollutant during the planned MSS activity using the CEMS.

    B. For each pollutant not described in Special Condition No. 20A, the permit holder shall calculate the pollutant's emissions during all occurrences of each type of planned MSS activity for each calendar month using the frequency of the planned MSS activity identified in work orders or equivalent records and the emissions of the pollutant during the planned MSS activity as represented in the planned MSS permit application. In lieu of using the emissions of the pollutant during the planned MSS activity as represented in the planned MSS permit application to calculate such emissions, the permit holder may determine the emissions of the pollutant during the planned MSS activity using an appropriate method, including but not limited to, any of the methods described in paragraphs 1 through 4 below, provided that the permit holder maintains appropriate records supporting such determination:

        (1) Use of emission factor(s), facility-specific parameter(s), and/or engineering knowledge of the facility's operations.

        (2) Use of emissions data measured (by a CEMS or during emissions testing) during the same type of planned MSS activity occurring at or on a similar facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.

        (3) Use of emissions testing data collected during a planned MSS activity occurring at or on the facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.

        (4) Use of parametric monitoring system (PEMS) data applicable to the facility.

21. With the exception of the emission limits in the MAERT attached to this permit, the permit conditions relating to planned MSS activities do not become effective until 180 days after issuance of the permit amendment that added such conditions. **(4/13)**

Permits by Rule

22. The following maintenance activities at the site are currently authorized by permits by rule (PBR) under 30 TAC Chapter 106 or PBR predecessor standard exemptions to 30 TAC Chapter 116. This list is not intended to be all inclusive and can be altered at the site without modification to this permit. **(4/13)**

Description	PBR No.
Sludge Management	106.532
Organic Chemical Usage	106.532
Brazing, Soldering, and Welding	106.227
Enclosed and Outdoor Dry Abrasive Blasting	106.263
Maintenance Painting	106.263
Hand-Held Equipment for Buffing, Polishing, Cutting, Drilling, Sawing, Grinding, Turning, or Machining Wood, Metal or Plastic	106.265
Emergency Engines and Portable Small Engines >12 Months startup and shutdown	106.263 106.511

Dated April 1, 2013

Attachment A

Permit No. 4180A

Inherently Low Emitting (ILE) Planned Maintenance Activities

Planned Maintenance Activity	Emissions				
	VOC	NO_x	CO	PM	SO_2
Vacuum truck solids loading and unloading				X	
Boiler general maintenance[1] including refractory maintenance repair and replacement				X	
Material handling system maintenance				X	
Enclosed dry abrasive blasting				X	
Inspection, repair, replacement, adjusting, testing, and calibration of analytical equipment, process instruments including sight glasses, meters, gauges, CEMS, PEMS.		X	X		X
Deslagging of boiler[2]	X	X	X	X	
Organic chemical usage	X				
Lube oil maintenance emissions	X			X	
Salamander heaters	X	X	X	X	X

Notes:

1. Includes pre-heater basket handling and maintenance, refractory change-out, fan maintenance and balancing, damper, air heater, and soot blower maintenance, and any other general boiler maintenance that does not exceed the worst-case emissions representation in the application.
2. Includes, but is not limited to, explosive blasting, clinker shooting, and other boiler deslagging activities; does not include dry abrasive blasting that may occur in boilers.

Dated April 1, 2013

Attachment B

Permit No. 4180A

Non-Inherently Low Emitting Planned MSS Activities

Planned Maintenance Activity	Emissions					
	EPN	VOC	NO_x	CO	PM	SO_2
Boiler optimization[1]	6	X	X	X	X	X
Use of fans during maintenance - unit offline	6				X	
Boiler startup and shutdown	6	X	X	X	X	X
Online removal of bottom ash buildup	6		X			

Notes:

1. Includes, but is not limited to, (i) leak and operability checks (e.g., turbine over-speed tests, troubleshooting), (ii) balancing, and (iii) tuning activities that occur during seasonal tuning or after the completion of initial construction, a combustor change-out, a major repair, maintenance to a combustor, or other similar circumstances.

Dated April 1, 2013