Special Conditions

Permit Numbers 51770 and PSDTX486M3

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

Federal Applicability

2. These facilities shall comply with applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Standards of Performance for New Stationary Sources (NSPS), Subpart A, D (Unit Nos. 1 and 2), Da (Unit No. 3), IIII (engines), and OOO (limestone handling). These facilities shall comply with applicable requirements of the U.S. EPA regulations in Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP), Subpart A, ZZZZ (diesel engines), UUUUU (Unit Nos. 1, 2, and 3). If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated. **(6/18)**

3. The permit holder will voluntarily limit emissions of oxides of nitrogen (NO_x) to a combined total of 9,522 tons per year (tpy) from the Sam Seymour Power Plant. The permit holder further agrees to make the 9,522 tpy limits between Sam Seymour Units 1, 2, and 3 federally enforceable with this permit condition.

Fuel Specifications and Limitations

4. The following fuels shall be authorized to be burned in all three boilers:

A. Lignite and/or subbituminous coal and various other coals with a maximum ash content of 28.11 percent by weight and with trace element concentrations that do not exceed those concentrations identified in Attachment A.

B. Fuel oil and natural gas with trace element concentrations that do not exceed those concentrations identified in Attachment A.

C. Oil-contaminated Class I Industrial Wastes generated on-site at the Fayette Power Project (FPP) as represented in the amendment application dated October 28, 1995. No Resource Conservation and Recovery Act (RCRA) hazardous waste streams shall be burned in any of the three Boilers.

D. Water from ash storage ponds on-site at the FPP as represented in the amendment applications dated October 2, 1987.

E. Marijuana confiscated by law enforcement agencies. The marijuana must be burned in conjunction with other fuels at a rate that will not cause an exceedance of the maximum allowable emission limits.

Each boiler is limited to combusting a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste as measured on a calendar quarter basis. **(9/14)**

F. Mixtures of the above fuels provided there will not be an exceedance of the maximum allowable emission limits.

G. The use of any other fuels not identified above will require prior notification to the Texas Commission on Environmental Quality (TCEQ) Regional Office. The notification shall include

sufficient documentation to demonstrate that any new fuels burned will not cause an exceedance of the maximum allowable emission limits. At the request of the Executive Director of the TCEQ, the holder of this permit may be asked to provided additional information, perform air dispersion modeling, stack sampling, or other testing, as required, to establish that air contaminants resulting from the firing of new fuels not identified above are protective of human health and the environment.

5. Approved oil-contaminated wastes are limited to the following maximum feed rates:

A. Fifteen tpy of coal and dirt contaminated with fuel or hydraulic oils.

B. Fifteen tpy of absorbent material, booms, and rags contaminated with fuel or hydraulic oil.

C. Forty tpy of sump waste contaminated with coal, dirt, fuel oil, lube oil, and/or hydraulic oil.

Compliance with these feed rates is based on the calendar year.

6. Upon request by the Executive Director of the TCEQ or any local air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuels fired in the boilers or shall allow air pollution control agency representatives to obtain a sample for analysis.

7. Opacity of emissions from Unit 1 or Unit 2 boiler stacks, Emission Point Nos. (EPNs) FPP-1N, FPP-2N, FPP-1 and FPP-2, shall not exceed 20 percent averaged over a six-minute period, except during periods of routine maintenance, start-up, or shutdown (MSS) or as otherwise allowed by law. During periods of MSS, the opacity shall be controlled in accordance with Special Condition No. 24. Opacity of emissions from the Unit 3 boiler stack, EPN 3-1B, shall not exceed 10 percent averaged over a six minute period, except during periods of routine maintenance, start-up, or shutdown (MSS) or as otherwise allowed by law. During periods of MSS, the opacity shall be controlled in accordance with Special Condition No. 24. Opacity shall be determined by the EPA Reference Method No. 9 during compliance stack sampling. Continuous demonstration of compliance with this special condition shall be with opacity monitors required by Special Condition No. 15. **(10/16)**

Material Handling Operational Requirements

8. While loading dry fly ash into tarp-covered transport trucks and/or fully enclosed transport trucks, no visible emissions shall be observed for more than 20 percent of the time as determined by EPA Method No. 22. At least one truck loading event per quarter will have EPA Method No. 22 performed and recorded. At the request of the TCEQ Regional Director, the use of tarp-covered trucks shall be terminated if it is determined that they cause excessive emissions.

9. Material handling not controlled by a telescopic discharge chute (maximum free fall of eight feet), baghouse, enclosure, or electrostatic precipitator shall be controlled, as necessary, by a wet dust suppression system.

10. All lignite and/or coal stockpiles shall be sprinkled with water and/or chemicals, as necessary, to achieve maximum control of dust emissions.

Implementation Schedule

11. All control upgrades implemented for facilities authorized by this permit shall be completed on a schedule to assure compliance with all short-term pound per hour (lb/hr) and annual TPY emission limits, as tabulated on the attached maximum allowable emission rates table (MAERT).

The initial emission limits become effective upon issuance of this permit. The interim emissions limits become effective on May 1, 2005. The final emissions limits become effective no later than ten years from the date of issuance of this permit, except for the final NO_x emission limits which take effect no later than December 31, 2006.

The holder of this permit is authorized to construct scrubbers for Unit Nos. 1 and 2, new stacks if necessary, and other ancillary equipment associated with the scrubbers. The holder of this permit is also authorized to construct equipment associated with future NO_x emission limits in the final emission limits. The holder of this permit shall forward to the staff of the TCEQ Air Permits Division more detailed engineering data on the additional NO_x controls, if necessary, that will be used to meet the final emission limits at least 180 days prior to start of construction of those NO_x controls. This information may be forwarded to the TCEQ in the form of a standard permit for pollution control projects pursuant to Title 30 Texas Administrative Code § 116.617 (30 TAC § 116.617).

After completion of the Implementation Schedule, the holder of this permit shall conduct sampling pursuant to Special Condition No. 13 and shall retain records to demonstrate continuing compliance with the emissions limits.

The permit holder has completed construction of controls necessary to comply with the final emission rates identified in the attached Maximum Allowable Emission Rate Table and the permit holder has conducted sampling pursuant to Special Condition No. 13 that demonstrates compliance with emission limits.

Compliance Stack Sampling

12. Sampling ports and platforms shall be incorporated into the design of all exhaust stacks according to the specifications set forth in the attachment entitled “Chapter 2, Stack Sampling Facilities.” Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director or the TCEQ Air Permits Division in Austin.

13. At the request of the Executive Director of the TCEQ, the holder of this permit shall perform stack sampling and other testing, as required, to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from sources authorized by this permit. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with the appropriate EPA Reference Methods 201A and 202 or Method 5B, modified to include back-half condensibles, for the concentration of particulate matter equal to or less than 10 microns in diameter (PM_{10}); Reference Method 8 or Reference Methods 6 or 6c for sulfur dioxide (SO_2); Reference Method 9 for opacity; Reference Method 10 for the concentration of carbon monoxide (CO); Reference Method 25A, modified to exclude methane and ethane, for the concentration of volatile organic compounds (VOC) (to measure total carbon as propane); and Reference Method 20 for the concentrations of NO_x and oxygen (O_2); or other equivalent methods approved by the Director of the TCEQ Air Permits Division in Austin or the TCEQ Regional Director.

Any deviations from those procedures must be approved by the Executive Director of the TCEQ prior to sampling. The TCEQ Executive Director or his 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 his expense.

A. The TCEQ Austin Regional Office shall be contacted as soon as testing is scheduled but not less than 30 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.

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, or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Austin Regional Director or the TCEQ Air Permits Division in Austin 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 Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for New Source Performance Standards (NSPS) testing which must have the EPA approval shall be submitted to the TCEQ Air Permits Division in Austin.

B. 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 EPNs FPP-1, FPP-2, and 3-1B following the installation of NO_x controls in 2005. The holder of this permit shall also perform stack sampling and other testing as required to establish the actual quantities of air contaminants being emitted into the atmosphere from EPNs FPP-1(FPP-1N) and FPP-2 (FPP-2N) following scrubber installation. Sampling of each boiler shall occur within 180 days after completion of initial NO_x controls on all boilers, completion of scrubber installation on FPP-1(FPP-1N) and FPP-2 (FPP-2N), and completion of any NO_x controls required to meet the final emission limits. Requests for an extension of this schedule shall be made in writing to and approved by the Director of the TCEQ Austin Regional Office. Additional sampling shall occur as may be required by the TCEQ or the EPA.

C. The boilers shall be tested at their maximum firing rate or as close to a full firing rate as possible. The firing rate shall be identified in the sampling report. The permit holder shall present at the pretest meeting the manner in which stack sampling will be executed in order to demonstrate compliance with the emission limits and with the emission standards found in NSPS Subparts D and Da.

D. Air contaminants to be sampled and analyzed for following the installation of initial and final (if required) NO_x controls include (but are not limited to) NO_x, CO, and VOC. Air contaminants to be sampled and analyzed for following the installation of scrubbers shall include (but are not limited to) SO_2, PM_{10}, sulfuric acid (H_2SO_4), hydrogen fluoride (HF), hydrogen chloride (HCl), lead (Pb), and opacity.

E. Within 90 days after the completion of the testing and sampling required herein, three copies of the sampling reports shall be distributed as follows:

One copy to the TCEQ Austin Regional Office.

One copy to the TCEQ Austin Office of Air, Air Permits Division.

One copy to the EPA Region 6 Office, Dallas.

Compliance testing pursuant to this permit condition was conducted in July 2011 that demonstrated compliance with emission limits.

14. The permittee may be required by the Executive Director of the TCEQ or his designated representative to sample and analyze the oil-contaminated wastes in accordance with proper waste management procedures in order to:

A. Verify that these wastes are Industrial Class I wastes and not RCRA hazardous waste streams, and/or

B. Determine the concentrations of constituents in the wastes including (but not limited to): arsenic, barium, cadmium, chromium, Pb, mercury, selenium, and silver.

Continuous Determination of Compliance

15. The holder of this permit shall calibrate, maintain, and operate a continuous emission monitoring system (CEMS) to measure and record the concentrations of NO_x, SO_2, opacity, and O_2 or CO_2 from EPNs FPP-1N, FPP-2N, and 3-1B. **(10/16)**

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 Nos. 1 through 9, 40 CFR Part 60, Appendix B, or an acceptable alternative. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division in Austin for requirements to be met.

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, or an acceptable alternative. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, Procedure 1, Section 5.2.3, and any CEMS downtime shall be reported to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken.

C. The monitoring data shall be reduced to hourly average concentrations at least once every hour, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of the permit allowable emission rate in lbs/hr at least once every hour. The lb/hr data from EPNs FPP-1N, FPP-2N, and 3-1B shall be summed monthly to TPY and used to determine compliance with the annual emissions limits of this permit. Demonstration of compliance with annual limits for pollutants requiring additional controls or emissions reduction shall initially be based upon the 12 months following installation of the additional controls; thereafter, compliance with annual emission limits shall be based on a rolling 12-month period.

(1) Ongoing compliance with the PM/PM_{10}/$PM_{2.5}$, CO, VOC, H_2SO_4, Pb, HCl and HF emission limits for EPNs FPP-1N, FPP-2N, and 3-1B shall be based on the most recent stack sampling that is representative of normal operations of each unit.

(2) For each contaminant, an emission factor in lb/MMBtu will be calculated based on the stack test data and the hourly heat input determined from the CEMS data during the stack test or other alternative methods acceptable to TCEQ. The emission factor will be based on the average of three test runs. If no stack sampling has been performed on the unit for a contaminant, then the emission factor used as the basis of the emission limit in the permit application shall be used. If no stack test has been performed to PM_{10} or $PM_{2.5}$, then the emission factor derived from the stack test for PM will be used.

(3) For each hour of operation, a pound per hour (lb/hr) emission rate will be calculated by multiplying the lb/MMBtu emission factor by the heat input in MMBtu/hr determined by the CEMS data for that hour. All resulting lb/hr emission rates that are less than or equal to the lb/hr emission limits in the MAERT will be considered in compliance with

the permit. The lb/hr emission rate determined as described above will be summed to obtain monthly total emissions that will be used to calculate 12-month rolling average emission rates in tpy for each contaminant. All resulting tpy emission rates that are less than or equal to the tpy emission limits in the maximum allowable emission rates table (MAERT) will be considered in compliance with the permit. Multiple stack tests may be conducted within a 12 month period to demonstrate compliance with an annual emission limit.

D. All monitoring data and quality-assurance data shall be maintained by the source for a period of five years and shall be made available to the TCEQ Executive Director or his designated representative upon request.

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

F. If applicable, each CEMS will be required to meet the design and performance specifications, pass the field tests, and meet the installation requirements and data analysis and reporting requirements specified in the applicable performance specifications in 40 CFR Part 75, Appendix A. The 40 CFR Part 75 is deemed an acceptable alternative to the performance specifications and quality assurance requirements of 40 CFR Part 60.

16. If any emission monitor fails to meet specified performance, it shall be repaired or replaced as soon as reasonably possible, but no later than seven days after it was first detected by any employee at the facility, unless written permission is obtained from the TCEQ which allows for a longer repair/replacement time. The holder of this permit shall develop an operation and maintenance program (including stocking necessary spare parts) to ensure that the continuous monitors are available as required.

17. The holder of this permit shall calibrate, maintain, and operate a fuel flow meter to record the total hourly fuel consumption by each boiler. The systems shall be accurate to plus or minus 10 percent of the units' maximum flow.

Recordkeeping Requirements

18. 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, EPA, or any air pollution control agency with jurisdiction.

A. A copy of this permit.

B. Permit application submitted January 31, 2011 and subsequent application representations submitted to the TCEQ. **(9/14)**

C. A complete copy of the testing reports and records of the initial performance testing completed pursuant to Special Condition No. 13.

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.

19. Recordkeeping programs for those facilities authorized by the permit shall be established and maintained such that the ability to demonstrate compliance with all authorized emission limits (short-term and annual) is ensured. Compliance with annual TPY emissions shall be based on a 12-month rolling average, unless otherwise specified elsewhere in this permit. Emissions calculations for verifying compliance with the emission limits shall be calculated at least once every month.

The following information shall be maintained at the plant by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made immediately available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction:

A. The NO_x, SO_2, and diluent gases (O_2 or CO_2) CEMS emissions data to demonstrate compliance with the emission rates listed in the MAERT. Opacity CEMS data shall be retained to show compliance with Special Condition No. 7.

B. Raw data files of all CEMS data including calibration checks and adjustments and maintenance performed on these systems in a permanent form suitable for inspection.

C. Records of the hours of operation and average daily quantity of fuel (by fuel type) fired in the boilers.

D. The permit holder shall keep records of SO_2 performance test data and continuous monitor data consisting of rolling three-hour averages considering each hour and the two proceeding hours. Compliance with the SO_2 emission rates will be based on the rolling three-hour averages. The permit holder shall report the SO_2 performance test data and continuous monitor data for Unit 3, EPN 3-1B, in the manner prescribed in 40 CFR § 60.49a. Additionally, the permit holder shall report all exceedances of SO_2 limits based on the rolling three-hour averages.

E. The permit holder shall keep records of process parameters necessary to demonstrate compliance with the emission sources not equipped with a CEMS. Emission calculations and emissions factors may be changed to reflect newer emission factors or emission factors that are based upon more recent stack sampling provided the new factors do not result in an exceedance of the maximum allowable emission rates.

F. To demonstrate compliance with Special Condition No. 5, the permit holder shall make and maintain records of the amount by weight of oil-contaminated wastes burned in the boilers by date and type of waste.

G. The permit holder shall keep records used in Special Condition No. 28 that are used to demonstrate compliance with emissions during planned MSS activities.

H. The permit holder shall keep records of EPA Method 22 observations of truck loading operations as required by Special Condition No. 8.

I. The permit holder shall keep records of the weight of municipal solid waste combusted in each boiler and the weight of all other fuels combusted in each boiler on a calendar quarter basis to show compliance with Special Condition No. 4.E. **(9/14)**

Additional Requirements

20. The FPP Unit 3 may operate under wet stack conditions. No reheat of the flue gases will occur after treatment by the flue gas desulfurization system. Under wet stack conditions, continuous opacity measurements will be collected from a certified opacity monitor located in the duct work at the outlet of each of the two electrostatic precipitator casings and before the flue gas desulfurization system.

Reporting

21. The holder of this permit shall submit to the TCEQ Austin Regional Office and the Air Enforcement Branch of the EPA in Dallas periodic reports as described in 40 CFR § 60.7. Such reports are required for each emission unit which is required to be continuously monitored pursuant to this permit. In addition to the information specified in 40 CFR § 60.7(c), each report shall contain

the hours of operation of each emissions unit which is required to be continuously monitored and a report summary of the periods of noncomplying emissions for equipment authorized by this permit and subject to NSPS.

22. If the average NO_x or SO_2 stack outlet emissions rate exceeds the maximum allowable emissions rate for more than three hours, 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. If the NO_x or SO_2 emission rate exceeds the emission rate in the MAERT for more than 24 hours, the permit holder shall notify the TCEQ Regional Office either verbally and follow with a written report detailing the cause of the increase in emissions and all efforts being made to correct the problem.

Routine Maintenance, Startup, and Shutdown

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

24. Opacity greater than 20 percent from EPNs FPP-1, FPP-2, FPP-1N or FPP-2N, and opacity greater than 10 percent from EPN 3-1B is authorized when the permit holder complies with the MSS duration limitations and other applicable work practices identified below. **(10/16)**

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 with EPNs FPP-1, FPP-2, FPP-1N, FPP-2N, and 3-1B is defined as the period that begins when the fuel oil igniters are started and ends when the EGF is released to the LCRA Generation Desk for automatic dispatch.

(a) A planned startup of the EGF shall not exceed 48 hours, except as allowed in Special Condition No. 24 (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.

(c) An aborted startup occurs after startup begins when fuel flow to the EGF is shut-off and the EGF is not released to the LCRA Generation Desk for automatic dispatch. A startup that occurs more than eight hours following fuel shut-off due to an aborted startup is considered a separate startup. A startup occurring less than eight hours following fuel shut-off due to an aborted startup is considered the same startup and may be considered an extended start, if the duration of the aborted startup and the subsequent startup exceeds 48 hours.

(2) A planned shutdown of the EGF with EPNs FPP-1, FPP-2, FPP-1N, FPP-2N, and 3-1B is defined as the period that begins when the LCRA Generation Desk releases control of the boiler to the plant for the purpose of a shutdown and ends when a temperature has been reached that allows personnel to enter the structure and conduct maintenance activities.

(a) A planned shutdown of the EGF shall not exceed 12 hours, except as allowed in Special Condition No. 24 (A)(2)(b).

(b) An extended planned shutdown is defined as a shutdown that lasts more than 12 hours. The total amount of incremental time the extended shutdowns exceed 10 hours shall not exceed 600 hours per unit 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 with EPNs FPP-1, FPP-2, FPP-1N, FPP-2N, and 3-1B 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 ESP inlet temperature (air heater outlet temperature) is between 150 and 250 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. 24 (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 EPNs FPP-1, FPP-2, FPP-1N or FPP-2N, and periods of opacity greater than 10 percent from EPN 3-1B from planned online and offline maintenance activities identified in Attachment B or C is authorized for no more than 535 hours in a calendar year for each boiler.

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. 24 (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.

25. 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.

26. 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.

27. Compliance with the emissions limits for planned MSS activities identified in the MAERT attached to this permit may be demonstrated as follows.

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 B) 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 C) whose emissions are measured using a CEMS, as per Special Condition No. 28A, 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 C) whose emissions occur through a stack, but are not measured using CEMS as per Special Condition No. 28A, 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. 28B.

D. For each pollutant emitted during non-ILE planned MSS activities (See Attachment C) 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. 28B.

(2) Once monthly emissions have been determined in accordance with Special Condition No. 27D(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 27A), to the annual emissions limit for the pollutant in the MAERT.

28. The permit holder shall determine the emissions during planned MSS activities for use in Special Condition No. 27 as follows.

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. 28A, 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.

29. 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.

Permits by Rule and Standard Permits

30. 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 (SE) 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.

Description	PBR, SE No.
Routine Maintenance, Startup, and shutdown	106.263
Hand-held and Manually Operated Machines	106.265
Paint Booth	SE-75
Brazing, Soldering, and Welding	106.227
Abrasive Blasting	106.452
Solvent Cleaning, Parts Degreaser	106.454
Portable Small Engines >12 months	106.511

31. The following facilities at the site are authorized by permits by rule (PBR) under 30 TAC Chapter 106 and by standard permits issued under 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.

EPN	Description	PBR/Standard Permit No.
3-1B	Unit 3 Scrubber Upgrades	88122
ACID TANK U1 & 2	Sulfuric Acid Tank U1 & U2	106.371
ACID TANK U3	Sulfuric Acid Tank U3	106.371
AMMONIA U1	Aqueous Ammonia Tank	106.371
AMMONIA U2	Aqueous Ammonia Tank	106.371
AMMONIA U3	Aqueous Ammonia Tank	106.371
AOF114	Diesel Fire Water Pump Unit 3 Fuel Tank	106.472 **(6/18)**
AOF115	Used Lube Oil Tank	106.472
AOF117	Diesel Tank (contractor)	106.472
AOF140E	Diesel Tank Units 1 & 2	106.472 **(6/18)**
AOF140W	Diesel Tank Units 1 & 2	106.472 **(6/18)**
AOF141	Diesel Tank Units 1 & 2 Utility	106.472
AOF142	Used Oil Tank	106.472
AOF152	Units 1&2 Fuel Yard Diesel Storage Tank	106.472 **(6/18)**
AOF162	Used Oil Tank Oil Storage Building	106.472
AOF168E	Diesel Tank Unit 3	106.472 **(6/18)**
AOF168W	Diesel Tank Unit 3	106.472 **(6/18)**
AOF172A	Kerosene Tank	106.472
AOF172B	Kerosene Tank	106.472

AOF187	Used Oil Tank	106.472 **(6/18)**
AOF197	Unit 3 Fuel Yard Diesel Storage Tank	106.472 **(6/18)**
AOF199B	Orange Pump Fuel Tank	106.472 **(6/18)**
AOF225	Emergency Generator Communication Bldg Fuel Tank	106.472 **(6/18)**
AOF228	Kerosene Tank	106.472 **(6/18)**
AOF77	Diesel Fire Water Pump Units 1 & 2 Fuel Tank	106.472 **(6/18)**
AOF79	Emergency Generator Units 1 &2 Fuel Tank	106.472 **(6/18)**
AOF90	Emergency Generator Unit 3 Main Fuel Tank	106.472 **(6/18)**
AOF91	Emergency Generator Unit 3 Auxiliary Fuel Tank	106.472 **(6/18)**
APC6	Polymer Tank	106.371
APC30	Chemical Dust Suppression Tank	106.473 **(6/18)**
APC31	Chemical Dust Suppression Tank	106.473 **(6/18)**
APC32	Chemical Dust Suppression Tank	106.473 **(6/18)**
APC33	Chemical Dust Suppression Tank	106.473 **(6/18)**
APC34	Chemical Dust Suppression Tank	106.473 **(6/18)**
APC45	Fire Suppression Tank	106.473 **(6/18)**
APC46	Fire Suppression Tank	106.473 **(6/18)**
APC47	Chemical Dust Suppression Tank	106.473 **(6/18)**
API-SEP	Separator Pit	106.532
CAUSTIC TANK U1 & 2	Sodium Hydroxide Tank	106.371
CAUSTIC TANK U3	Sodium Hydroxide Tank	106.371
CC-BIN-1	Clean Coal Silo 1	115662 **(6/18)**
CC-BIN-2	Clean Coal Silo 2	115662 **(6/18)**
CC-HEATER	Propane Heater	115662 **(6/18)**
CC-MTDC-1	Mix Tank Dust Collector 1	115662 **(6/18)**
CC-MTDC-2	Mix Tank Dust Collector 2	115662 **(6/18)**
Degrease	Degreasers	106.454
DFWP-1&2	Diesel Fire Water Pump Units 1 & 2	106.511
DFWP-3	Diesel Fire Water Pump Unit 3	106.511
EG-1&2	Emergency Generator Units 1 &2	106.511
EG-3A	Emergency Generator Unit 3 Auxiliary	106.511
EG-3M	Emergency Generator Unit 3 Main	106.511
EG-Comm	Emergency Generator Communication Bldg.	106.511
EP-S1	Outdoor Blasting Area	SE 102 **(6/18)**

FO-Handle	Fuel Oil Handling Fugitives	106.472
FPP-1N (FPP-1), FPP-2N (FPP-2), 3-1B	Unit 1, 2, &3 NO_x Emission Controls	52373
FPP-1N (FPP-1), FPP-2N (FPP-2), 3-1B	Unit 1, 2, & 3 Hg Emission Control	115662 **(6/18)**
GAS TANK COALYARD	Gasoline Tank	106.473
GASTANK1	Gasoline Tank	106.473
GYPSUM BLDG LOAD	Gypsum Truck Loading and Unloading	148566 **(6/18)**
GYPSUM BLDG PILE	Gypsum Storage Pile	148566 **(6/18)**
LOV-U1	Unit 1 Lube Oil Vents	SE 58
LOV-U2	Unit 2 Lube Oil Vents	SE58
LOV-U3	Unit 3 Lube Oil Vents	SE53
Mblast	Maintenance Sandblasting	106.263 **(6/18)**
Mpaint	Maintenance Painting	106.263
Orange Pump 07404	Orange Pump	106.512
PACBIN-1	Unit 1 ACI Silo	115662 **(6/18)**
PACBIN-2	Unit 2 ACI Silo	115662 **(6/18)**
PACBIN-3	Unit 3 ACI Silo	115662 **(6/18)**
Paint	Paint Booth	SE 75
Sandblast	Sandblasting Enclosed	106.452
Skimmer	Skimmer	106.532
WATERTREAT	Water Treatment Chemicals	106.371 **(6/18)**
WELD	Soldering, Welding, Brazing	106.227

Consent Decree Related Permit Conditions

32. Commencing on December 31, 2013, the holder of this permit will comply with the following emission rates applicable to PM emissions from Unit 1, 2, and 3 boiler stacks, EPNs FPP-1N, FPP-2N, and 3-1B. Compliance will be based upon a 30-day rolling average of hours of operation excluding the following periods of operation:

A. Commencing at the initial firing of fuel in the boiler and ending when steam from the boiler is being used to make electricity.

B. Commencing at the time that steam is no longer used to generate electricity or fuel ceases to be fired, whichever is earlier, and ending when both electricity is not being generated and no fuel is fired in the boiler.

C. During any sudden, infrequent, not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal and usual manner. This does not include failures that are caused in part by poor maintenance or careless operation.

Unit Number	Filterable PM (lb/MMBtu)	Total PM (Filterable and Condensable)

		(lb/MMBtu)
1	0.03	0.04
2	0.03	0.04
3	0.03	0.04

33. Commencing on December 31, 2013, the holder of this permit will comply with the following emission rate applicable to PM emissions from the Unit 3 boiler stack, EPN 3-1B. Compliance will be based upon a 30-day rolling average of hours of operation excluding the following periods of operation:

A. Commencing at the initial firing of fuel in the boiler and ending when steam from the boiler is being used to make electricity, and any hours of operation following a cold start until Unit 3 is released to the LCRA Generation Desk for automatic dispatch.

B. Commencing at the time that steam is no longer used to generate electricity or fuel ceases to be fired, whichever is earlier, and ending when both electricity is not being generated and no fuel is fired in the boiler.

C. During any sudden, infrequent, not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal and usual manner. This does not include failures that are caused in part by poor maintenance or careless operation.

Unit Number	Filterable PM (lb/MMBtu)	Total PM (Filterable and Condensable) (lb/MMBtu)
3	--	0.03

34. The holder of this permit shall conduct PM stack testing for a minimum of three (3) two-hour tests runs for each unit (i.e. Unit 1, 2, and 3) on or before September 1, 2014. 40 CFR Part 51, Appendix M Reference Method 202 or 40 CFR Part 60, Appendix A-3, Reference Method 5B, modified to include back-half, will be used for condensable PM during stack tests. Reference Method 5B will be used for filterable PM during these stack tests. The stack test protocol will conform to applicable EPA and TCEQ requirements and guidance. The stack test emission rate for each unit shall be the arithmetic average of all valid runs for each unit conducted during the stack test. The stack test emission rate from the most recent and representative stack test for each unit will be used to demonstrate compliance with the Total PM (filterable and condensable) emission rates in Special Condition Nos. 32 and 33 for the time period between December 31, 2013, and December 31, 2014.

35. The holder of this permit shall install on all three boilers a CEMS to measure and record filterable PM (PM CEMS) on or before November 1, 2014, and complete Performance Specification 11, 40 CFR Part 60, Appendix B on all three boilers on or before December 31, 2014. The PM CEMS will be operated at all times that the unit is operating except during malfunction, repairs and quality assurance and quality control activities. Commencing after December 31, 2014, the PM CEMS will be used to demonstrate compliance with the filterable PM emission limits in Special Condition No. 32 for all three boilers. Commencing after December 31, 2014, the filterable PM emission rate as measured by the PM CEMS will be added to the stack test emissions rate for condensable PM as measured by the most recent and representative stack test for that unit to

demonstrate compliance with the Total PM (filterable and condensable) emission limits in Special Condition Nos. 32 and 33.

36. Commencing on December 31, 2013, distillate oil or natural gas shall be the only fuels authorized for the period from initial firing of fuel in the boiler through when the boiler is used to generate electricity of all three boilers.

37. The holder of this permit will provide a copy of the stack reports required by Special Condition No. 34 to Texas Campaign for the Environment and Environmental Integrity Project. The holder of this permit will provide quarterly PM CEMS data to TCEQ Region 11 for public access.

Date: June 13, 2018

Attachment A

Permit Numbers 51770 and PSDTX486M3

Maximum Allowable Trace Element Concentrations in Fuels Burned in Boilers

Metal	Concentration as ppmw (1)
Antimony	500
Arsenic	60
Barium	3,840
Beryllium	21
Cadmium	25
Chromium	150
Cobalt	192
Copper	270
Lead	752
Manganese	408
Mercury	5.7
Molybdenum	528
Nickel	154
Selenium	70
Silver	50
Thallium	134
Vanadium	328
Zinc	1,140

Notes:

1. Concentrations identified in this table are limitations of specific trace elements in the fuels to be burned and are not stack concentrations. Recognition that these elements are in the fuels is also acknowledgment and authorization for said elements as air contaminant emissions or resulting air contaminants that will also occur from the boiler stacks.

Date: May 2, 2014

Attachment B

Permit Nos. 51770 and PSDTX486M3

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	
Material handling system maintenance				X	
Inspection, repair, replacement, adjusting, testing, and calibration of analytical equipment, process instruments including sight glasses, meters, gauges, CEMS, PEMS		X			X
Acetylene usage and torch cutting	X	X	X	X	
Sludge management	X				
Miscellaneous maintenance1 operations including refractory maintenance repair and replacement				X	
Small equipment fugitive repair and replacement2 (VOC)	X				
Lube oil, diesel and other oil storage tank maintenance emissions	X				
Gasoline storage tank maintenance emissions	X				
Filter change-outs				X	
Boiler maintenance with fans running including boiler deslagging3	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, (i) repair/replacement of pumps, compressors, valves, pipes, flanges, transport lines, filters and screens in natural gas, fuel oil, diesel oil, water treatment chemicals, lube oil, and gasoline service, (ii) vehicle and mobile equipment maintenance that may involve small VOC emissions, such as oil changes, transmission service, and hydraulic system service.

3. 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.

Date: May 2, 2014

Attachment C

Permit Nos. 51770 and PSDTX486M3

Non-Inherently Low Emitting Planned MSS Activities

Planned MSS Activity	**Emissions**					
	EPN	VOC	NO_x	CO	PM	SO_2
Boiler optimization[1]	FPP-1N FPP-2N 3-1B FPP-1 FPP-2	X	X	X	X	X
Use of fans during maintenance - unit offline	FPP-1N FPP-2N 3-1B FPP-1 FPP-2				X	
Maintenance without fans- unit offline	FPP-1N FPP-2N 3-1B FPP-1 FPP-2				X	
Boiler startup and shutdown	FPP-1N FPP-2N 3-1B FPP-1 FPP-2	X	X	X	X	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.

Date: October 7, 2016