

Bryan W. Shaw, Ph.D., *Chairman*  
Buddy Garcia, *Commissioner*  
Carlos Rubinstein, *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
*Protecting Texas by Reducing and Preventing Pollution*

December 17, 2010

TO: Persons on the attached mailing list

RE: White Stallion Energy Center, LLC  
TCEQ Docket No. 2009-0283-AIR; SOAH Docket No. 582-09-3008;  
Permit Nos. 86088, HAP28, PAL26, and PSD-TX-1160

The above-referenced matter was previously approved by the Commission at its September 29, 2010 Agenda. The order concerning this matter was mailed with a draft copy of the permit on October 21, 2010. Enclosed is the signed copy of the permit.

Should you have any questions, please contact Leslie Gann of the Texas Commission on Environmental Quality's Office of the Chief Clerk (MC 105) at (512) 239-3319.

Sincerely,

A handwritten signature in cursive script that reads "LaDonna Castañuela".

LaDonna Castañuela  
Chief Clerk

LDC/lg

Enclosure

White Stallion Energy Center, LLC  
TCEQ Docket No. 2009-0283-AIR  
SOAH Docket No. 582-09-3008

FOR THE APPLICANT:

Eric Groten, Attorney  
Patrick Lee, Attorney  
Vinson & Elkins LLP  
2801 Via Fortuna, Suite 100  
Austin, Texas 78746

Randy Bird, Chief Operating Officer  
White Stallion Energy Center, LLC  
1302 Waugh Drive, Suite 896  
Houston, Texas 77019

Steve A. Langevin, Senior Consultant  
RPS JDC, Inc.  
14450 JFK Boulevard, Suite 400  
Houston, Texas 77032

INTERESTED PERSONS:

See attached list.

FOR THE EXECUTIVE DIRECTOR  
via electronic mail:

Benjamin Rhem, Staff Attorney  
Texas Commission on Environmental  
Quality  
Environmental Law Division MC-173  
P.O. Box 13087  
Austin, Texas 78711-3087

Randy Hamilton, Technical Staff  
Texas Commission on Environmental  
Quality  
Air Permits Division MC-163  
P.O. Box 13087  
Austin, Texas 78711-3087

FOR OFFICE OF PUBLIC ASSISTANCE  
via electronic mail:

Bridget Bohac, Director  
Texas Commission on Environmental  
Quality  
Office of Public Assistance MC-108  
P.O. Box 13087  
Austin, Texas 78711-3087

FOR PUBLIC INTEREST COUNSEL  
via electronic mail:

Scott Humphrey, Attorney  
Texas Commission on Environmental  
Quality  
Public Interest Counsel MC-103  
P.O. Box 13087  
Austin, Texas 78711-3087

FOR THE CHIEF CLERK  
via electronic mail:

LaDonna Castañuela  
Texas Commission on Environmental  
Quality  
Office of Chief Clerk MC-105  
P.O. Box 13087  
Austin, Texas 78711-3087

\*The Honorable Paul Keeper  
\*The Honorable Kerrie Qualtrough  
Administrative Law Judge  
State Office of Administrative Hearings  
P. O. Box 13025  
Austin, Texas 78711-3025

\* Courtesy Copy via e-Filing

GREG FRIEND  
MCELROY SULLIVAN & MILLER LLP  
PO BOX 12127  
AUSTIN TX 78711-2127

CHRISTINA MANN  
ENVIRONMENTAL INTEGRITY PROJECT  
1303 SAN ANTONIO ST STE 200  
AUSTIN TX 78701-1636

PAUL TOUGH  
MCELROY SULLIVAN & MILLER LLP  
PO BOX 12127  
AUSTIN TX 78711-2127

THOMAS WEBER  
MCELROY SULLIVAN & MILLER LLP  
PO BOX 12127  
AUSTIN TX 78711-2127

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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
*Protecting Texas by Reducing and Preventing Pollution*

December 16, 2010

MR RANDY BIRD  
CHIEF OPERATING OFFICER  
WHITE STALLION ENERGY CENTER LLC  
1302 WAUGH DR STE 896  
HOUSTON TX 77019-3908

Re: State, Hazardous Air Pollutant, Plant-Wide Applicability, and  
Prevention of Significant Deterioration Permit Applications  
Permit Numbers: 86088, HAP28, PAL26, and PSDTX1160  
Coal-Fired Electric Generation Facility  
Bay City, Matagorda County  
Regulated Entity Number: RN105616148  
Customer Reference Number: CN603403700

Dear Mr. Bird:

This is in response to your Form PI-1 (General Application for Air Preconstruction Permits and Amendments) concerning the above-referenced facility.

A permit for your new facility is enclosed. The permit contains several general and special conditions that define the level of operation and a maximum allowable emission rates table (MAERT). We appreciate your careful review of the special conditions of the permit and assuring that all requirements are consistently met. In addition, the construction and operation of the facilities must be as represented in the application.

This permit authorizes planned startup and shutdown emissions as represented in the permit application for only the sources identified on the MAERT. Maintenance activities were not represented in the application and are not authorized and will need to be authorized separately in the future.

This permit will be automatically void upon the occurrence of any of the following, as indicated in Title 30 Texas Administrative Code § 116.120(a) [30 TAC § 116.120(a)]:

1. Failure to begin construction within 18 months of the date of issuance,
2. Discontinuance of construction for more than 18 months prior to completion, or
3. Failure to complete construction within a reasonable time.

Upon request, the executive director may grant extensions as allowed in 30 TAC § 116.120(b).

Mr. Randy Bird  
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Re: Permit Numbers 86088, HAP28, PAL26, and PSDTX1160

The limitations of 30 TAC § 116.120(a) do not apply to physical or operational changes allowed without an amendment under 30 TAC § 116.721 of this title (relating to Amendments and Alterations). [30 TAC § 116.715(c)(1)]

This permit is effective as of the date of this letter and will be in effect for ten years from the date of approval.

As of July 1, 2008, all analytical data generated by a mobile or stationary laboratory in support of compliance with air permits must be obtained from a NELAC (National Environmental Laboratory Accreditation Conference) accredited laboratory under the Texas Laboratory Accreditation Program or meet one of several exemptions. Specific information concerning which laboratories must be accredited and which are exempt may be found in 30 TAC § 25.4 and § 25.6.

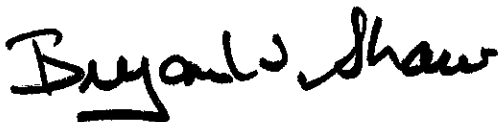
For additional information regarding the laboratory accreditation program and a list of accredited laboratories and their fields of accreditation, please see the following Web site:

[http://www.tceq.state.tx.us/compliance/compliance\\_support/qa/env\\_lab\\_accreditation.html](http://www.tceq.state.tx.us/compliance/compliance_support/qa/env_lab_accreditation.html)

For questions regarding the accreditation program, you may contact the Texas Laboratory Accreditation Program at (512) 239-3754 or by e-mail at [labprgms@tceq.state.tx.us](mailto:labprgms@tceq.state.tx.us).

If you need further information or have any questions, please contact Mr. Randy Hamilton, P.E., at (512) 239-1512 or write to the Texas Commission on Environmental Quality, Office of Permitting and Registration, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,



Bryan W. Shaw, Ph.D., Chairman  
For the Texas Commission on Environmental Quality

Enclosures

cc: Mr. Shanon DiSorbo, Vice President, RPS JDC, Inc., Houston  
Air Section Manager, Region 12 - Houston  
Air Permits Section Chief, New Source Review, Section (6PD-R), U.S. Environmental  
Protection Agency, Region 6, Dallas



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AIR QUALITY PERMIT

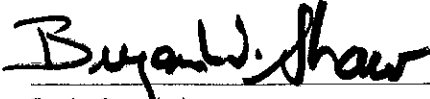


A PERMIT IS HEREBY ISSUED TO  
White Stallion Energy Center, LLC  
AUTHORIZING THE CONSTRUCTION AND OPERATION OF  
Coal-Fired Electric Generation Facility  
LOCATED AT Bay City, Matagorda County, Texas  
LATITUDE 28° 50' 33" LONGITUDE 96° 00' 16"

- Facilities covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code § 116.116 (30 TAC § 116.116)]**
- Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120(a), (b) and (c)]
- Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
- Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify to the Office of Permitting and Registration the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
- Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
- Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
- Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
- Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]
- Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with §§ 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC § 116.115(b)(2)(G)]
- Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
- This permit may be appealed pursuant to 30 TAC § 50.139.
- This permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
- There may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(e)]
- Emissions from this facility must not cause or contribute to a condition of "air pollution" as defined in TCAA § 382.003(3) or violate TCAA § 382.085, as codified in the Texas Health and Safety Code. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.**

TCEQ Docket No.: 2009-0283-AIR  
PERMITS 86088, HAP28, PAL26, and PSDTX1160

Date: December 16, 2010

  
For the Commission

## SPECIAL CONDITIONS

Permit Numbers 86088, HAP28, PAL26, and PSD-TX-1160

### EMISSION RATES AND PERMIT REPRESENTATIONS

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. This permit authorizes planned start-up and shutdown (SS) activities that comply with the emission limits in the MAERT and the opacity limit of Special Condition No. 9. Compliance with the annual emission limits shall be based on throughput for a rolling 12-month year rather than the calendar year.
2. Emission limits are based upon representations in the permit application dated September 5, 2008, and subsequent updates dated February 3, 2009 and February 13, 2009.

### FEDERAL APPLICABILITY

3. The Circulating Fluidized Bed (CFB) Boilers, identified as Facility Identification Nos. (FINS) CFB1, CFB2, CFB3, and CFB4, shall comply with applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations in Title 40 Code of Federal Regulations (40 CFR) Part 60, Standards of Performance for New Stationary Sources, Subpart A, General Conditions, and Subpart Da, Standards of Performance for Electric Utility Steam Generating Units.
4. The Stationary Diesel Engines, identified as EPNs EMGEN1, EMGEN2, and FIREWTRPMP, shall comply with the applicable requirements of:
  - A. 40 CFR Part 60, Subpart A and Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; and
  - B. 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
5. The coal and limestone processing facilities shall comply with the applicable requirements of 40 CFR Part 60, Subparts A, Y, and OOO.
6. If any condition of this permit is more stringent than the regulations identified in Special Condition Nos. 3 through 5, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

SPECIAL CONDITIONS

Permit Numbers 86088, HAP28, PAL26, and PSD-TX-1160

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FUEL SPECIFICATIONS, OPERATING LIMITATIONS, PERFORMANCE STANDARDS, AND CONSTRUCTION SPECIFICATIONS

7. Fuel fired in the CFB Boilers, FINs CFB1, CFB2, CFB3, and CFB4, shall be limited to:
  - A. Coal with:
    - (1) elemental sulfur content not to exceed a 12-month rolling average of 3.2 pounds sulfur per million British thermal units (lb/MMBtu) of heat input, with the heat input based on fuel higher heating value (HHV); and
    - (2) trace metal concentrations not to exceed the concentration limitations identified in Attachment A of this permit.
  - B. Petroleum coke with:
    - (1) elemental sulfur content not to exceed a 12-month rolling average of 4.9 lb/MMBtu of heat input, with the heat input based on fuel HHV; and
    - (2) trace metal concentrations not to exceed the concentration limitations identified in Attachment B of this permit.
  - C. No. 2 fuel oil with a maximum sulfur content of 0.05% by weight.
  - D. Use of any other fuel will require prior approval from the permitting authority.
  - E. Upon request by the Executive Director of the Texas Commission on Environmental Quality (TCEQ) or any air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuel fired in the CFB Boilers or shall allow air pollution control agency representatives to obtain a sample for analysis.
8. The CFB Boilers, FINs CFB1, CFB2, CFB3, and CFB4, shall each be limited to a maximum heat input of 3,300 MMBtu/hr, averaged over a calendar month, based on the HHV of the fuel fired.
9. Opacity of emissions from EPNs 1A-1B and 2A-2B must not exceed 10 percent, averaged over a six-minute period, except for those periods described in Title 30 Texas Administrative Code § 111.111(a)(1)(E) [30 TAC § 111.111(a)(1)(E)], 40 CFR Part 60, § 60.11(c), or as otherwise allowed by rule or statute.
10. Emissions from the CFB Boilers, FINs CFB1, CFB2, CFB3, and CFB4, shall not exceed the

**SPECIAL CONDITIONS**

Permit Numbers 86088, HAP28, PAL26, and PSD-TX-1160

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performance standards in the following tables. The performance standards in these tables shall apply at all times except during periods of start-up and shutdown as identified in the permit application.

**A. Standards demonstrated by Continuous Emissions Monitoring Systems (CEMS):**

<b>Pollutant<sup>1</sup></b>	<b>Performance Standard (lb/MMBtu)<sup>2,3</sup></b>	<b>Compliance Averaging Period</b>
NO <sub>x</sub>	0.10	Hourly
NO <sub>x</sub>	0.070	30-day rolling
SO <sub>2</sub> (coke)	0.114	30-day rolling
SO <sub>2</sub> (coke)	0.086	12-month rolling
SO <sub>2</sub> (coal)	0.063	30-day rolling
SO <sub>2</sub> (coal)	0.063	12-month rolling
CO	0.10	12-month rolling
Hg	0.00000086	12-month rolling
	<b>Performance Standard (ppmv)<sup>4</sup></b>	
NH <sub>3</sub>	10 ppmv	Hourly
NH <sub>3</sub>	5 ppmv	12-month rolling

**B. Standards demonstrated by Reference Method<sup>5</sup> (RM) testing:**

<b>Pollutant<sup>1</sup></b>	<b>Performance Standard (lb/MMBtu)<sup>2</sup></b>	<b>Compliance Demonstration Period</b>
PM/PM <sub>10</sub> (front-half catch)	0.010	3-hour average
PM/PM <sub>10</sub> total <sup>6</sup> (coke)	0.025	3-hour average
PM/PM <sub>10</sub> total <sup>6</sup> (coal)	0.025	3-hour average
PM <sub>2.5</sub> total (coke)	0.025 <sup>7</sup>	3-hour average
PM <sub>2.5</sub> total (coal)	0.018 <sup>7</sup>	3-hour average
VOC	0.0050	3-hour average
H <sub>2</sub> SO <sub>4</sub> (coke)	0.016	3-hour average
H <sub>2</sub> SO <sub>4</sub> (coal)	0.012	3-hour average

**SPECIAL CONDITIONS**

Permit Numbers 86088, HAP28, PAL26, and PSD-TX-1160

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<b>Pollutant<sup>1</sup></b>	<b>Performance Standard (lb/MMBtu)<sup>2</sup></b>	<b>Compliance Demonstration Period</b>
HCl (coke)	0.0013	3-hour average
HCl (coal)	0.005	3-hour average
HF (coke)	0.0004	3-hour average
HF (coal)	0.0003	3-hour average

**Notes:**

- |  |   |                           |
|--|---|---------------------------|
| <sup>1</sup> NO <sub>x</sub> - nitrogen oxides | PM <sub>10</sub> - PM ≤10 <sub>µm</sub> in diameter   | HCl- hydrogen chloride    |
| SO <sub>2</sub> - sulfur dioxide               | PM <sub>2.5</sub> - PM ≤2.5 <sub>µm</sub> in diameter | HF - hydrogen fluoride    |
| CO - carbon monoxide                           | VOC - volatile organic compounds                      | Hg - mercury              |
| PM - particulate matter                        | H <sub>2</sub> SO <sub>4</sub> - sulfuric acid mist   | NH <sub>3</sub> - ammonia |

<sup>2</sup> lb/MMBtu - pounds of emissions per million Btu of heat input. Heat input is based on fuel HHV.

<sup>3</sup> When different fuels are fired simultaneously or within an averaging period, the SO<sub>2</sub> emission limit is the heat input weighted average of the individual fuel emission limits:

$$\text{Emission Limit}_{30\text{-day rolling}} = (0.063a + 0.114b + 0.056c)/(a + b + c)$$

$$\text{Emission Limit}_{12\text{-month rolling}} = (0.063a + 0.086b + 0.056c)/(a + b + c)$$

Where  
 a = the percentage of total heat input from coal;  
 b = the percentage of total heat input from petroleum coke; and  
 c = the percentage of total heat input from fuel oil.

<sup>4</sup> ppmv - parts per million by volume, dry, adjusted to 5 percent oxygen (O<sub>2</sub>).

<sup>5</sup> RM - EPA Reference Methods, based on the average of three stack sampling runs to be conducted as prescribed by Special Condition Nos. 24 and 32.

<sup>6</sup> Total PM/PM<sub>10</sub> including back-half (condensibles) catch of sampling train.

<sup>7</sup> Compliance with PM<sub>2.5</sub> performance standard to be determined within 180 days following promulgation of test method by EPA.

11. In the event that a CEMS for NO<sub>x</sub> is not operating for a period longer than one hour while a CFB boiler is operating, the permit holder shall operate at no less than the NO<sub>x</sub>-compliant ammonia feed rate to the selective non-catalytic reduction (SNCR) system that was measured prior to the loss of the CEMS (adjusted to load).

SPECIAL CONDITIONS

Permit Numbers 86088, HAP28, PAL26, and PSD-TX-1160

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12. In the event that a CEMS for SO<sub>2</sub> is not operating for a period longer than one hour while a CFB boiler is operating, the permit holder shall operate at no less than the SO<sub>2</sub>-compliant limestone feed rate to the boiler and lime feed rate to the polishing scrubber that were measured prior to the loss of the CEMS (adjusted to load).
  
13.
  - A. The holder of this permit shall operate the CFB Boilers and associated air pollution control equipment in accordance with good air pollution control practice to minimize emissions during SSM activities, by operating in accordance with a written SSM plan. The plan shall include detailed procedures for review of relevant operating parameters of the CFB Boilers and associated air pollution control equipment during SSM to make adjustments to minimize excess emissions. The plan shall also address readily foreseeable start-up scenarios, including hot startups, and provide for appropriate review of the operational condition of the boiler before initiating start-up. In addition, the plan shall address procedures for minimizing opacity and PM emissions while conducting on-line maintenance of the CFB boilers or their emission control equipment.
  
  - B. In order to limit maximum hourly emissions of SO<sub>2</sub>, the startup of the CFBs must be sequenced so that only one CFB at a time is firing coal or petroleum coke while operating in startup mode.
  
  - C. No bypassing of a CFB baghouse is allowed while the CFB is firing coal or petroleum coke, regardless of whether the CFB is operating in startup or shutdown mode.
  
  - D. Only planned and routine startup/shutdown operations are authorized by this permit. Emissions resulting from any unscheduled and/or unplanned startup/shutdown activity associated with an upset (emissions event) are not authorized by this permit.
  
  - E. The cold start-up sequence of a CFB boiler shall be completed within 12 hours.
  
14. The CFB Boiler Stacks EPNs 1A-1B and 2A-2B shall be approximately 490 feet tall with an exit diameter of approximately 15 feet for each flue. Stack sampling ports and platform(s) shall be constructed on each CFB boiler stack as specified in the attachment entitled "Chapter 2, Stack Sampling Facilities," or an alternate design may be approved by the TCEQ Houston Regional Director.
  
15. The 2,800-kW Diesel-Fired Emergency Generators, identified as EMGEN1 and EMGEN2, shall meet the following specifications:

## SPECIAL CONDITIONS

Permit Numbers 86088, HAP28, PAL26, and PSD-TX-1160

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- A. Fuel shall be limited to diesel engine fuel containing no more than 500 ppm by weight sulfur. Purchased diesel engine fuel shall comply with the EPA standards for nonroad diesel fuel in 40 CFR Part 80, Regulation of Fuels and Fuel Additives, in effect at the time of purchase.
  - B. Operation of each generator engine shall be limited to a maximum of 500 hours per year.
16. The 250 hp Diesel-Fired Fire Water Pump identified as EPN FIREWTRPMP, shall meet the following specifications:
- A. Fuel shall be limited to diesel engine fuel containing no more than 500 ppm by weight sulfur. Purchased diesel engine fuel shall comply with the EPA standards for nonroad diesel fuel in 40 CFR Part 80, Regulation of Fuels and Fuel Additives, in effect at the time of purchase.
  - B. Operation of the pump engine shall be limited to a maximum of 500 hours per year unless a greater number of hours of operation is required to fight a fire.

## CHEMICAL AND FUEL STORAGE

17. Anhydrous ammonia storage is subject to the following requirements.
- A. Maximum on-site storage is limited to the eight pressure tanks identified in the permit application, each with a nominal capacity of 10,000 gallons.
  - B. The tanks shall be located within
    - (1) a physical barrier to vehicular traffic; and
    - (2) a containment system which is capable of holding the entire volume of material stored.
  - C. Piping and unloading points shall be protected from impact by falling objects.
  - D. Each tank vent valve shall be equipped with an alarm which will notify personnel that the relief valve has opened.
  - E. Tanks shall be vapor balanced to the transport vessel during all tank filling operations. The vapor return line shall be purged back to either the transport vessel or the storage

## SPECIAL CONDITIONS

Permit Numbers 86088, HAP28, PAL26, and PSD-TX-1160

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tank after every tank loading operation and prior to disconnection of the line. Interlocks shall be installed so that the unloading pump will not run unless the vapor return line to the transport vessel is connected.

- F. All plant personnel assigned to anhydrous ammonia injection operations shall participate in continuing training in safety guidelines for the handling of anhydrous ammonia, to be conducted no less frequently than once every two years; new and transferred personnel shall complete all initial training required for their specific assignments prior to assumption of their new duties.
  - G. Overhead activity involving the lifting of heavy equipment above the anhydrous ammonia storage area shall not be permitted.
  - H. The holder of this permit shall maintain a complete emergency response plan at the plant site that describes the course of action to be taken by personnel in the event of an anhydrous ammonia tank or line rupture, or a severe anhydrous ammonia leak. This plan shall include water-mitigation methods, notification of the proper civil authorities, and any potentially affected residences and any other appropriate organizations. This plan shall be made available upon request to representatives of the TCEQ or any local program having jurisdiction.
18. Audio, olfactory, and visual checks for ammonia leaks shall be made once per shift within the operating area.
- A. No later than one hour following detection of a leak, plant personnel shall take one or more of the following actions:
    - (1) Locate and isolate the leak; and/or
    - (2) Stop the leak by bypassing the leaking equipment or taking equipment out of service.
  - B. If the leaking equipment cannot be repaired or replaced within 6 hours, use clamping procedures to prevent the leak until replacement or repair can be performed.

SPECIAL CONDITIONS

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19. In any consecutive 12-month period, the holder of this permit shall not receive more than the following quantities of diesel fuel:

<b>Tank Number</b>	<b>12-Month Throughput (Gallons)</b>	<b>Fuel Type</b>
T-WTRPMP	7,000	Diesel
T-EMGEN	110,500	Diesel
T-DSLVEH	500,000	Diesel
TNK-FO1	1,200,000	No. 2 Fuel Oil
TNK-FO2	1,200,000	No. 2 Fuel Oil
T-GASVEH	100,000	Gasoline

MATERIAL HANDLING OPERATING LIMITATIONS AND STANDARDS

20. Permanent plant roads shall be paved with a cohesive hard surface which can be cleaned by sweeping and washing as necessary to maintain compliance with all TCEQ rules and regulations. Other roads shall be sprinkled with water and/or surface crusting agents as necessary to maintain compliance with all TCEQ rules and regulations.
21. No visible emissions may leave the plant property. If visible emissions do leave the plant property, further controls or measures shall be installed and/or implemented to limit visible emissions. A trained observer with delegation from the Executive Director of the TCEQ may determine compliance with this special condition by 40 CFR Part 60, Appendix A, RM 22, or equivalent. As represented in the permit application, coal, petroleum coke, and limestone will be brought into the facility property via barge, truck, or rail and transported to stockpiles via conveyors. Lime, sand, and activated carbon will be unloaded pneumatically from trucks and conveyed to bins or silos equipped with baghouses. Fly ash from the boiler exhaust baghouses and bottom ash from the boilers will be pneumatically transferred to storage silos. Fly ash and bottom ash collected in the silos will be loaded into trucks using a dust collection hood over each tank to minimize particulate emissions. Any spillage of material shall be cleaned up as soon as possible and handled in such a way as to minimize emissions.
22. As determined by a certified opacity observer with delegation from the Executive Director of the TCEQ and according to 40 CFR Part 60, Appendix A, Reference Method 9, or

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equivalent, opacity of emissions from any single fabric filter baghouse stack listed in Special Condition No. 23, and from load out of fly ash (identified as EPNs FASHLOAD1, FASHLOAD2, FASHLOAD3, and FASHLOAD4) and bottom ash (identified as EPNs BASHLOAD12 and BASHLOAD34) from the storage silos to trucks, shall not exceed 5 percent averaged over a six-minute period.

23. Material handling baghouses, designed to meet an emission limit of 0.005 grain PM per dry standard cubic foot of exhaust, properly installed and in good working order, shall control PM emissions from the following sources:

<b>Source</b>	<b>EPN</b>
Unit 1 Fuel/Limestone Dust Collector	DC-FUEL1
Unit 2 Fuel/Limestone Dust Collector	DC-FUEL2
Unit 3 Fuel/Limestone Dust Collector	DC-FUEL3
Unit 4 Fuel/Limestone Dust Collector	DC-FUEL4
Unit 1 Fly Ash Dust Collector	DC-FLYASH1
Unit 2 Fly Ash Dust Collector	DC-FLYASH2
Unit 3 Fly Ash Dust Collector	DC-FLYASH3
Unit 4 Fly Ash Dust Collector	DC-FLYASH4
Unit 1 & 2 Bed Ash Dust Collector	DCBEDASH12
Unit 3 & 4 Bed Ash Dust Collector	DCBEDASH34
Unit 1 & 2 Lime Silo Dust Collector	DC-LIME12
Unit 3 & 4 Lime Silo Dust Collector	DC-LIME34
Unit 1 & 2 Carbon Silo Dust Collector	DCCARBON12
Unit 3 & 4 Carbon Silo Dust Collector	DCCARBON34
Railcar Unloading Building	DC-RAIL-UL
Crusher Building	DC-CRUSHER

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### INITIAL DEMONSTRATION OF COMPLIANCE

24. The holder of this permit shall perform initial stack sampling and other testing to establish the actual quantities of air contaminants being emitted into the atmosphere. Unless otherwise specified in this Special Condition No. 24, the sampling and testing shall be conducted in accordance with the methods and procedures specified in Special Condition No. 25. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. The TCEQ Executive Director or his designated representative shall be afforded the opportunity to observe all such sampling.

A. For the CFB Boilers, FINs CFB1, CFB2, CFB3, and CFB4:

- (1) Demonstrate compliance with the performance standards of Special Condition No. 10.B and the hourly emission rates of the MAERT, applicable to normal operations, using the average of three one-hour stack sampling test runs for each contaminant.
- (2) Air contaminants to be sampled and analyzed under (1) above include: NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, H<sub>2</sub>SO<sub>4</sub>, HCl, HF, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NH<sub>3</sub>, and Hg. Diluents to be measured include O<sub>2</sub> or carbon dioxide (CO<sub>2</sub>).
- (3) Demonstrate compliance with the performance standards of Special Condition No. 9 applicable to normal operations, using the average of 30 six-minute readings as provided in 40 CFR § 60.11(b).
- (4) Demonstrate compliance with 40 CFR Part 60, Subparts A and Da, for NO<sub>x</sub>, SO<sub>2</sub>, PM, and opacity. For NO<sub>x</sub> and SO<sub>2</sub>, the 30-day test results shall also be used to demonstrate compliance with the 30-day performance specifications for NO<sub>x</sub> and SO<sub>2</sub> in Special Condition No. 10.A.
- (5) Demonstrate compliance with the lb/MMBtu performance standards listed on Attachments A and B and the lb/hr emission rate for lead listed on the MAERT using the average of three one-hour stack sampling test runs.
- (6) Boiler load during testing shall be maintained as follows.
  - (a) Operate at maximum firing rates for the atmospheric conditions occurring

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during the test as measured by millions of pounds of steam generated per hour or MW of electric generator output. If during subsequent operations the steam generated as measured by millions of pounds of steam generated per hour or MW of electric generator output is greater than that recorded during the test, additional stack sampling may be required. At no time may the emission rate exceed the rates specified in the MAERT.

- (b) During 30-day average emission testing, the boiler load does not have to be maximum, but the load must be representative of future operating conditions and must include at least one 24-hour period at full load.
- B. For at least one material handling/storage baghouse from Special Condition No. 23, to be selected by the Houston Regional Director of the TCEQ, or his designated representative, sample PM emissions using Reference Method 5 testing to show compliance with the emission limits of Special Condition No. 23.
- C. For the Diesel-Fired Emergency Generators, identified as EPNs EMGEN1 and EMGEN2 demonstrate compliance with the emission rates of the MAERT by showing compliance with the requirements of Special Condition No. 15. For the Diesel-Fired Fire Water Pump, identified as EPN FIREWTRPMP, demonstrate compliance with the emission rates of the MAERT by showing compliance with the requirements of Special Condition No. 16.
- D. For the Cooling Towers, identified as EPNs COOLTWR1, COOLTWR2, COOLTWR3, and COOLTWR4, demonstrate compliance with the emission rates of the MAERT by maintaining records that demonstrate that the drift eliminators are designed to limit drift as specified in the permit application, and by inspection of the modules, selected by the TCEQ Houston Regional Director or his designated representative, for consistency with the specified design, flow bypassing the drift eliminators, and damage to the drift eliminators. The manufacturer's specifications and drawings of the internals shall be provided to facilitate inspection.
- E. Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Permitting and Registration, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for New Source Performance Standards testing which must have EPA approval shall be submitted to the TCEQ Houston Regional Office.
- F. For each CFB Boiler, sampling as required by this condition shall occur within 60 days after the particular boiler achieves a fuel firing rate of 3,300 MMBtu/hr, but no later than

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180 days after initial start-up. Sampling for PM<sub>2.5</sub> is excepted from this requirement if at the time of initial start-up of the CFB, the EPA has not promulgated a test method for sampling PM<sub>2.5</sub>. In that case, sampling for PM<sub>2.5</sub> is required within 180 days following promulgation of such a test method. The first boiler operating day of 30-day average initial performance testing required by 40 CFR § 60.48Da(f) must commence within 180 days of initial start-up.

- G. The deadlines established by this condition may be extended by the TCEQ Houston Regional Office for good cause shown.

## TEST METHODS AND PROCEDURES

25. A. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual, EPA Methods in 40 CFR Part 60, Appendix A and 40 CFR Part 51, Appendix M, EPA Conditional Test Methods, and American Society for Testing and Materials (ASTM) as follows:
- (1) Appendix A, Methods 1 through 4, as appropriate, for exhaust flow, diluent, and moisture concentration;
  - (2) Appendix A, Method 5, 5a through 5i, or 17, modified to include back-half condensibles, for the concentration of PM;
  - (3) Appendix A, Method 5, 5a through 5i, or 17, for the filterable concentration of PM (front-half catch);
  - (4) Appendix A, Method 6, 6a, 6c, or 8, for the concentration of SO<sub>2</sub>;
  - (5) Appendix A, Method 7E for the concentrations of NO<sub>x</sub> and O<sub>2</sub>, or equivalent methods;
  - (6) Appendix A, Method 8 or a modified Method 8 for H<sub>2</sub>SO<sub>4</sub>;
  - (7) Appendix A, Method 9 for opacity, as provided in 40 CFR § 60.11(b);
  - (8) Appendix A, Method 10 for the concentration of CO;
  - (9) Appendix A, Method 19, for NO<sub>x</sub> calculation methods, if approved by the Houston Regional Office;

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- (10) Appendix A, Method 25A, modified to exclude methane and ethane, for the concentration of VOC (to measure total carbon as propane);
  - (11) Appendix A, Method 26 or 26A for HCl and HF;
  - (12) EPA Conditional Test Method 27 (CTM-027), for NH<sub>3</sub>;
  - (13) Appendix A, Method 29 for the metals listed in Attachments A and B;
  - (14) Appendix M, Methods 201A and 202, or Appendix A, Reference Method 5, modified to include back-half organic condensables, for the concentration of PM<sub>10</sub>. For inorganic condensables, a parallel controlled condensation method (NCASI Method 8A) shall be used. (any method, procedures, or apparatus not identified in the CFR must be approved by the TCEQ and EPA prior to use);
  - (15) Appendix M, Methods 201A or Appendix A, Reference Method 5, for the filterable concentration of PM<sub>10</sub> (front-half catch); and
  - (16) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound, and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (also known as the Ontario Hydro Method), Appendix A, Method 30A or 30B, or other approved EPA methods.
- B. Any deviations from the procedures in A. must be approved by the Executive Director of the TCEQ or his designated representative prior to sampling.
- C. The TCEQ Houston Regional Office shall be given notice as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting.
- (1) The notice shall include:
    - (a) Date for pretest meeting.
    - (b) Date sampling will occur.
    - (c) Name of firm conducting sampling.
    - (d) Type of sampling equipment to be used.
    - (e) Method or procedure to be used in sampling.
    - (f) Projected date of commencement of the 30-day rolling average initial performance tests for SO<sub>2</sub> and NO<sub>x</sub>, in accordance with 40 CFR § 60.46a(f) and Special Condition No. 11A.

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- (2) 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. The permit holder shall present at the pretest meeting the manner in which stack sampling will be executed in order to demonstrate compliance with emission standards found in this permit and 40 CFR Part 60, Subparts Da and Db.
  - (3) Prior to the pretest meeting, a written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ, EPA or ASTM sampling procedures shall be made available to the TCEQ. The TCEQ Houston Regional Director shall approve or disapprove of any deviation from specified sampling procedures.
- D. Information in the test report shall include the following data for each test run:
- (1) hourly petroleum coke and coal firing rates (in tons);
  - (2) average petroleum coke Btu (HHV)/lb as-received and dry weight;
  - (3) average coal Btu (HHV)/lb as-received and dry weight;
  - (4) average steam production rate (in millions of pounds per hour) or average generator output (in MW);
  - (5) daily sulfur content and heat content of the fuel measured in accordance with EPA Reference Method 19 to show compliance with 40 CFR Part 60, Subpart Da;
  - (6) control device operating rates, including SNCR reagent injection and solids injection rates (limestone, lime, and activated carbon);
  - (7) emissions in the units of the limits of this permit, lb/hr and lb/MMBtu, and three-hour or 30-day average, as appropriate; and
  - (8) any additional records deemed necessary during the stack sampling pre-test meeting.
- E. Two copies of all final sampling reports shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached conditions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be

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distributed as follows:

One copy to the TCEQ Houston Regional Office.

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

- F. The deadlines established by this condition may be extended by the TCEQ Houston Regional Office for good cause shown.

CONTINUOUS DEMONSTRATION OF COMPLIANCE

26. The holder of this permit shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) to measure and record the concentrations of NO<sub>x</sub>, CO, and SO<sub>2</sub> from FINs CFB1, CFB2, CFB3, and CFB4. Diluents to be measured include O<sub>2</sub> or CO<sub>2</sub>. The CEMS data shall be used to determine continuous compliance with the NO<sub>x</sub>, CO, and SO<sub>2</sub> emission limitations in Special Condition No. 3 (NO<sub>x</sub> and SO<sub>2</sub>), Special Condition No. 10.A, and the attached MAERT. Continuous compliance with the performance standards of Special Condition No. 10.A shall commence on the first boiler operating day of the 30-day initial performance testing required by NSPS Subpart Da.

- 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 EPA alternative. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Permitting and Registration, 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 EPA alternative. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, § 5.2.3, any CEMS downtime, and all cylinder gas audit exceedances of ±15 percent accuracy shall be reported semiannually to the TCEQ Houston Regional Director; necessary corrective action shall be taken on a timely basis. Supplemental stack concentration measurements may be required at the discretion of the TCEQ Houston Regional Director.
- C. The monitoring data shall be reduced to hourly average concentrations at least once every day, using normally 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 emissions rate in pounds per hour at least once every day. Pound

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- per hour data shall be summed on a monthly basis to tons per rolling 12-months and used to determine compliance with the annual emissions limits of this permit. If the CEMS malfunctions, then the recorded concentrations may be reduced to units of the permit allowable as soon as practicable after the CEMS resumes normal operation.
- D. The TCEQ Houston Regional Office shall be notified at least 30 days prior to any required relative accuracy test audits (RATA) in order to provide it the opportunity to observe the testing. Reports for any required RATA shall be submitted to the Houston Regional Office within 30 days after sampling is completed.
- E. 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 and B, as an acceptable alternative to paragraph A. of this condition.
- F. Each CEMS shall be operational during 95 percent of the operating hours of the CFB Boiler, exclusive of the time required for zero and span checks. If this operational criterion is not met for a calendar quarter, the holder of this permit shall develop and implement a monitor quality improvement plan within the following calendar quarter. The plan should address the downtime issues to improve availability and reliability. The plan should provide additional assurance of compliance including record keeping of appropriate SNCR reagent and solids flow rates for monitor downtime periods.
27. The holder of this permit shall install, calibrate, operate, and maintain a continuous opacity monitoring system (COMS) to measure and record the opacity of emissions from EPNs 1A, 1B, 2A, and 2B. The COMS data shall be used to determine continuous compliance with the opacity emission limitations in Special Condition Nos. 3 and 9 and the baghouse performance monitoring requirements of 40 CFR § 60.48Da(o)(1)(2).
- A. The COMS shall satisfy all of the Federal NSPS requirements for COMS as specified in 40 CFR Part 60, Appendix B, Performance Specification 1 (PS-1). In order to demonstrate compliance with PS-1, the COMS shall meet the manufacturer's design and performance specifications, and undergo performance evaluation testing as outlined in 40 CFR Subpart A, § 60.13. The TCEQ Houston Regional Director shall be notified 30 days prior to the certification.
- B. The COMS shall be zeroed and spanned daily as specified in 40 CFR § 60.13. Corrective action shall be taken when the 24-hour span drift exceeds two times the amounts specified in PS-1, or as specified by the TCEQ if not specified in PS-1.

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- C. If the EPA promulgates a quality assurance, quality control standard for the COMS, a Quality Assurance Plan (QAP) shall be prepared in accordance with the EPA standard for the COMS and adhered to, within six months after promulgation. The QAP shall be maintained to reflect changes to component technology. At the request of the TCEQ Houston Regional Director, the holder of this permit shall submit documentation demonstrating compliance with these standards.
  - D. The data shall be reduced to six-minute opacity averages, using a minimum of 36 equally-spaced data points from each six-minute period, as specified in 40 CFR § 60.13.
  - E. The COMS shall be operational during 95 percent of the operating hours of the CFB Boiler, exclusive of the time required for zero and span checks. If this operational criterion is not met for a calendar quarter, the holder of this permit shall develop and implement a monitor quality improvement plan within the following calendar quarter. The plan should address the downtime issues to improve availability and reliability. The plan should provide additional assurance of compliance including EPA Reference Method 9 support during daytime monitor downtime periods and parametric support for nighttime monitor downtime periods.
  - F. Recertification, if required, shall be based on the requirements of 40 CFR Part 60, Appendix B, PS-1 in effect at the time of initial certification.
28. The holder of this permit shall install, calibrate, operate, and maintain CEMS to measure and record the concentration of NH<sub>3</sub> from FINs CFB1, CFB2, CFB3, and CFB4. The NH<sub>3</sub> concentrations shall be corrected and reported in accordance with Special Condition No. 10A. The CEMS data shall be used to determine continuous compliance with the NH<sub>3</sub> performance specifications in Special Condition No. 10.A and the MAERT. Any other method used for measuring NH<sub>3</sub> slip shall require prior approval from the TCEQ Houston Regional Office, with consultation between the Regional Office and the TCEQ Air Permits Division.
29. The holder of this permit shall install, calibrate, operate, and maintain CEMS or sorbent trap monitoring system to measure and record the concentration of mercury from FINs CFB1, CFB2, CFB3, and CFB4, as described in 40 CFR Parts 60 and 75 (the rule versions in effect immediately prior to February 8, 2008 vacatur of Clean Air Mercury Rule). The CEMS data shall be used to demonstrate continuous compliance with the emission limitations of Special Condition No. 10.A and the MAERT.
30. Each CEMS shall be operational on a rolling 12-month average for at least 95 percent of the

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corresponding operating hours of the CFB boiler it is designed to monitor (excluding time required for zero and span). If any CEMS fails to meet the performance standards specified in this permit, it shall be repaired or replaced as soon as reasonably possible.

31. The as-fired coal and petroleum coke shall be sampled at least once per calendar quarter and analyzed for sulfur, metals, and HHV, to demonstrate on-going compliance after the initial demonstration of compliance with the sulfur content limit of Special Condition No. 7, the non-mercury metal performance standards identified in Attachments A and B of this permit, and the emission rates for lead in the MAERT. The analyses shall be obtained from a NELAC (National Environmental Laboratory Accreditation Conference) accredited laboratory under the Texas Laboratory Accreditation Program.
32. After the initial demonstration of compliance, periodic stack sampling of FINS CFB1, CFB2, CFB3, and CFB4 for H<sub>2</sub>SO<sub>4</sub>, HCl, HF, VOC, and total PM/PM<sub>10</sub> shall be used to demonstrate ongoing compliance and shall meet the following specifications:
  - A. Stack sampling shall be performed once annually during periods of normal operation, except as follows:
    - (1) If the annual test does not establish compliance with a performance standard of Special Condition No. 10.B, the holder of this permit must conduct additional tests (under similar operating rates and fuel charge rates as used in the initial test, or under scenarios reviewed and approved by the TCEQ Houston Regional Office) during the year to be averaged with the previous test(s) to demonstrate compliance with Special Condition No. 10.B; or
    - (2) if, after three years of stack sampling, the average of the three annual stack sampling results for a pollutant is less than 70 percent of the applicable performance standard identified in Special Condition No. 10.B, then compliance stack sampling for such pollutant may be conducted once every three years.
  - B. Sampling required in subsection A. of this special condition shall demonstrate compliance with the performance standards of Special Condition No. 10.B and the lb/hr emission limits of the MAERT applicable to normal operations.
  - C. Sampling required in subsection A. of this special condition shall be conducted in accordance with the methods, procedures, and notification protocol specified in Special Condition No. 25.
  - D. Ongoing compliance with the H<sub>2</sub>SO<sub>4</sub>, HF, HCl, VOC, and PM/PM<sub>10</sub> tons per year

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emission rates in the MAERT shall be demonstrated by calculating rolling 12-month annual emissions from emission factors (lb/MMBtu, HHV) obtained from the sampling required in (A.) of this condition and the monthly total heat input (MMBtu, HHV) from petroleum coke and coal.

33. Compliance with the following emission rates in the MAERT, applicable to periods of planned start-up and shutdown, shall be demonstrated as follows:
  - A. Compliance with the lead, PM and PM<sub>10</sub> (front half and total) emission rates in the MAERT applicable during start-up and shutdown shall be demonstrated if the recorded pressure drop across the baghouse meets manufacturer guidelines for proper operation during start-up and shutdown.
  - B. Compliance with the VOC emission rate in the MAERT applicable during start-up and shutdown shall be demonstrated if the CO emissions during start-up and shutdown are in compliance with the CO emission rate in the MAERT for start-up and shutdown.
  - C. Compliance with the H<sub>2</sub>SO<sub>4</sub>, HF, and HCl emission rates in the MAERT for start-up and shutdown shall be demonstrated if the SO<sub>2</sub> emissions during start-up and shutdown are in compliance with the SO<sub>2</sub> emission rate in the MAERT for start-up and shutdown.
34. Following the initial demonstration of compliance, ongoing compliance with the emission limits in the MAERT for the diesel engines, EPNs EMGEN1, EMGEN2, and FIREWTRPMP, shall be through source operation in accordance with manufacturer's specifications, or in accordance with written procedures that are shown to maintain operating conditions necessary for emission compliance. The Executive Director of the TCEQ or his designated representative may also require direct measurement of emissions using the sampling methods and procedures specified in Special Condition No. 25 to establish compliance with the limitations, in which case the sampled emission rate will be used to determine compliance.
35. Following the initial demonstration of compliance, ongoing compliance with the emission rates in the MAERT for the cooling towers, EPNs COOLTWR1, COOLTWR2, COOLTWR3, and COOLTWR4, will be based on annual inspections of modules, and repair as necessary to maintain drift eliminator structural integrity and minimize bypassing of flow around drift eliminators.
36. Following the initial demonstration of compliance, ongoing compliance with the emission rates in the MAERT for the coal, petroleum coke, ash, limestone, lime, sand, and carbon material handling baghouses will be demonstrated by annual opacity testing using Reference Method 9 for those EPNs listed in Special Condition No. 23. The Executive Director of the

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TCEQ or his designated representative may also require sampling conducted in accordance with the methods and procedures specified in Special Condition No. 25 to directly measure the lb/hr emission rate, in which case the sampled lb/hr emission rate will be used to determine compliance with the applicable emission rate in the MAERT.

37. Compliance with the emission rates in the MAERT for the fuel storage tanks, EPNs T-WTRPMP, T-EMGEN, TNK-FO1, TNKFO2, T-DSLVEH, and T-GASVEH, will be demonstrated by compliance with Special Condition No. 19.

### CASE-BY-CASE MACT

38. This case-by-case MACT permit, Permit No. HAP28, establishes federally enforceable MACT emission limits for CO (CO is a surrogate of organic HAPs) and filterable PM (filterable PM is a surrogate for non-mercury HAP metals), Hg, HCl, and HF for the CFBs, identified as FINs CFB1, CFB2, CFB3, and CFB4.

### PLANTWIDE APPLICABILITY LIMIT (PAL)

39. A. The PAL for each pollutant listed in subsection B. of this Special Condition was calculated as the individual sum of the allowable 12-month rolling average emission rates of these pollutants in the MAERT of this permit.
- B. Any project to be authorized by permit by rule, permit amendment, or other TCEQ permitting mechanism, including the modification of existing facilities or the addition of new facilities, shall not be subject to federal new source review (FNSR) for the air pollutants listed below provided the total plant wide emissions from the White Stallion Energy Center do not exceed the PAL of:

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<u>Pollutant</u>	<u>PAL, Tons per rolling 12-month period</u>
NO <sub>x</sub>	4,069
CO	5,794
SO <sub>2</sub>	4,956
VOC	293
PM	1,552
PM <sub>10</sub>	1,513
PM <sub>2.5</sub>	1,108
H <sub>2</sub> SO <sub>4</sub>	925

- C. Compliance with the PALs specified in subsection B. of this special condition shall be demonstrated on a 12-month rolling basis by totaling the calendar month actual emissions from each of the facilities listed in the MAERT using the CEMS, calendar month fuel use records, calendar month tank throughput records, calendar month hours of operation, and emission factors identified in Appendix A of the permit application.
- D. The PAL of this Special Condition is subject to the requirements of 30 TAC Chapter 116, Subchapter C, Plant-Wide Applicability Limits.
- E. If the authorization to construct any of the individual facilities listed in the MAERT authorized by this permit expires for lack of timely construction in accordance with 30 TAC § 116.120, within 30 days after expiration, the permit holder shall submit a request to the TCEQ to alter this permit by removing the facilities not constructed from the MAERT and subtracting their allowable emission rates from the PAL specified in subsection B. of this Special Condition.
- F. If future actual emission rates calculated for an air pollutant exceed the PAL thresholds listed above, the permittee shall be subject to FNSR for that air pollutant. Only the changes that cause the new emission rate to exceed the PAL threshold are subject to FNSR. The permit holder shall submit to the TCEQ a FNSR permit application for the changes that cause actual emissions to exceed the PAL.
- G. The PALs specified in subsection B. of this Special Condition must be reduced, to become effective on the future compliance date(s), of any applicable new federal or state regulatory requirement(s). Within 12 months of the effective date of the regulation, the permittee shall submit a request to alter or amend the permit to reflect the more stringent emission rates.

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- H. This PAL is effective for a period of ten years. The permit holder shall submit a request to alter or amend this Permit Special Condition to re-evaluate the PAL at least six months, but not earlier than 18 months prior to the date of permit expiration.

## RECORDKEEPING REQUIREMENTS

- 40. 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, the EPA, or any air pollution control agency with jurisdiction.
  - A. A copy of this permit.
  - B. Permit application dated September 5, 2008 and subsequent representations submitted to the TCEQ prior to permit issuance.
  - C. A complete copy of the testing reports and records of the initial air emissions performance testing completed pursuant to the Initial Demonstration of Compliance.
  - D. Required stack sampling results or other air emissions testing (other than CEMS or COMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.
- 41. The following records shall be kept for a minimum of five years after collection and shall be made immediately available upon request to representatives of the TCEQ, the EPA, or any local air pollution control program having jurisdiction. Records shall be legible and maintained in an orderly manner. The following records shall be maintained:
  - A. Continuous emission monitoring data for opacity, SO<sub>2</sub>, NO<sub>x</sub>, CO, Hg, NH<sub>3</sub>, and diluent gases, O<sub>2</sub> or CO<sub>2</sub>, from CEMS to demonstrate compliance with the emission rates listed in the MAERT and performance standards listed in Special Condition Nos. 9 and 10.A. for pollutants that are monitored by CEMS or COMS. Data retention at intervals less than one hour is not required. Records must identify the times when emissions data have been excluded from the calculation of performance standards because of start-up, shutdown, maintenance, and malfunction along with the justification for excluding data. Records should also identify factors used in calculations that are used to demonstrate compliance with emissions limits and performance standards.
  - B. Files of all CEMS or COMS quality assurance measures including calibration checks, adjustments and maintenance performed on these systems.

## SPECIAL CONDITIONS

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- C. Written, certified coal and petroleum coke analysis, to include HHV, for all petroleum coke received from each coal and petroleum coke supplier, to show compliance of the as-fired fuel with the sulfur and trace metal concentration limits of Special Condition No. 7.A. and 7.B., and written certified analysis provided by fuel oil and diesel fuel suppliers to show compliance with the sulfur content limitations of Special Condition No. 7.
- D. Average coal and petroleum coke feed rate to the CFB Boilers in pounds per hour and the corresponding average heat input (HHV) in MMBtu/hr, based upon an average over each calendar month.
- E. Ammonia, limestone, and lime hourly feed rates to the CFB boilers:
  - (1) established during a successful initial performance test; and
  - (2) maintained during periods of CEMS downtime exceeding one hour.
- F. Records to show compliance with Special Condition No. 15, including:
  - (1) diesel fuel sulfur content of any fuel added to engine fuel storage tanks; and
  - (2) hours of operation of the emergency generator and fire water pump engines, on a monthly and rolling 12-month basis.
- G. The amount received, date of receipt, and the consecutive 12-month total of fuel received for fuel stored in EPNs T-WTRPMP, T-EMGEN, TNK-FO1, TNKFO2, T-DSSLVEH, and T-GASVEH to show compliance with the throughput requirements of this permit.
- H. Records of cleaning and maintenance performed on abatement equipment, including records of replaced bags and other parts on baghouses. A log should be kept with descriptions of the activity performed, any parts or subassemblies replaced, and the time period over which the cleaning or maintenance was performed.
- I. Records required to show compliance with 40 CFR Part 60, Subparts Da, Y, OOO, and IIII, including daily average SO<sub>2</sub> removal efficiency, baghouse performance monitoring, and records of required reporting.

## SPECIAL CONDITIONS

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- J. Records of all venting of the anhydrous ammonia storage tanks to show compliance with Special Condition No. 17.D.
- K. Records of personnel training related to anhydrous ammonia injection operations and emergency response planning, including names of trainers and trainees, dates of training, and material covered, to show compliance with Special Condition No. 17.F.
- L. Records of audio, olfactory, and visual checks for ammonia leaks and repairs to show compliance with Special Condition No. 18.
- M. Records, including dates performed, of road maintenance for dust control to show compliance with Special Condition No. 20.
- N. Records of annual opacity readings made to show compliance with Special Condition Nos. 22 and 36.
- O. Records of annual inspections of cooling tower drift eliminators, including the date of inspection, a description of the as-found and after-repair condition, and any repairs made.
- P. Records of the individual sum of the actual 12-month rolling average emissions of each of the pollutants identified in Special Condition No. 39, to show compliance with the PAL. The records must include the data source and calculations used to compile these sums.
- Q. Records of hourly NO<sub>x</sub> emissions from any CFB boiler when its NO<sub>x</sub> continuous emission rate monitoring system does not produce a valid hourly emission rate while the CFB is operating, and records of hourly SO<sub>2</sub> emissions when the SO<sub>2</sub> monitoring system does not produce a valid hourly emission rate, to show compliance with Special Condition No. 10.A and the MAERT. The method of predicting or calculating these emissions should be identified in the SSM plan identified in Special Condition No. 13. or the CEMS Quality Improvement Plan identified in Special Condition No. 26.F.

## REPORTING

- 42. The holder of this permit shall submit to the TCEQ Houston Regional Office quarterly or semiannual reports of excess emissions and monitoring systems performance, as described in 40 CFR § 60.7(c), for each emission unit which is required to be continuously monitored pursuant to 40 CFR Part 60. In addition, these reports shall identify:

## SPECIAL CONDITIONS

Permit Numbers 86088, HAP28, PAL26, and PSD-TX-1160

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- A. any emissions of continuously monitored CO, ammonia, and mercury in excess of any of the limits of this permit and monitoring systems performance, following the format of 40 CFR § 60.7(c); and
  - B. the pollutant, emission rates, and test dates of any required stack emission tests conducted during the reporting period which is in excess of any of the limits of this permit.
43. Within one year after initial start-up of the first CFB boiler, the holder of this permit shall submit a copy of the SSM plan identified in Special Condition No. 13.A. to the TCEQ Air Permits Division in Austin and the U.S. EPA Region Air Permits Section, 1445 Ross Avenue, Dallas, Texas 75202-2733.

## AS-BUILT INFORMATION

44. The holder of this permit shall submit to the TCEQ Houston Regional Office and the TCEQ Air Permits Division change pages to the permit application reflective of the final plans and engineering specifications on the CFB Boilers, auxiliary boilers, emergency engines, and other sources, including their respective control equipment, no later than 30 days before initial start-up of the CFB Boilers. This information shall include:
- A. All TCEQ Tables in the permit application, updated with manufacturer and other specified data.
  - B. Revised plot plans and equipment drawings as required to reflect the constructed facility.
  - C. Identification of any maximum inputs of raw materials for the as-built facility, and any diesel fuel sulfur or engine manufacturer's emission specification that is lower than the values represented in the permit application and used for calculating or establishing emissions. Accompanying this information shall be a request for permit alteration. The TCEQ may alter the permit special conditions and MAERT to reflect any such reduction in emissions. Increases in allowable emission rates shall require authorization before construction begins.

## OPTIMIZATION STUDIES

45. Within 60 days after completing the first annual compliance sampling required by

**SPECIAL CONDITIONS**

Permit Numbers 86088, HAP28, PAL26, and PSD-TX-1160

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Special Condition No. 32, the holder of this permit shall submit a request to adjust the performance standards for the control of H<sub>2</sub>SO<sub>4</sub>, HCl, HF, Hg, VOC, and front half and total PM/PM<sub>10</sub> identified in Special Condition No. 10.B to reflect the results of the sampling of these compounds conducted to that date, with appropriate consideration given for data variability. The adjustment on a pollutant-by-pollutant basis to the performance standard for the control of H<sub>2</sub>SO<sub>4</sub>, HCl, HF, Hg, VOC, or front half and total PM/PM<sub>10</sub> shall only be required if the average of the sampling for any such pollutant is 50 percent or less of the currently permitted value. At a minimum, this submittal shall include the Initial Demonstration of Compliance sampling required by this permit and the first annual compliance sampling required by Special Condition No. 32.

Dated: **DEC 16 2010**

**Attachment A**  
**Permit Numbers 86088 and PSD-TX-1160**  
**Non-Mercury Metal Concentrations in Coal**  
**and Emission Performance Standards**

<b>Constituent</b>	<b>Maximum Concentration (ppmw)</b>	<b>Performance Standard (lb/MMBtu)</b>
Arsenic	5.0	5.52E-06
Cadmium	0.8	3.45E-07
Beryllium	1.7	9.53E-07
Lead	6.4	1.80E-06
Chromium	17	2.90E-06
Copper	9.2	1.52E-06
Manganese	24	8.42E-06
Selenium	2.5	9.67E-07
Silicon Dioxide	45,500	4.02E-03
Aluminum	10,200	1.01E-03
Iron Oxide	21,600	2.65E-03
Calcium Oxide	3,350	7.88E-04
Sodium	608	8.79E-05
Potassium	1,700	1.88E-04
Titanium	620	5.88E-05
Magnesium	440	4.87E-05
Nickel	14	3.18E-06
Vanadium	59	2.07E-05
Zinc	27	1.08E-05

Dated **DEC 16 2010**

**Attachment B**  
**Permit Numbers 86088 and PSD-TX-1160**  
**Non-Mercury Metal Concentrations in Petroleum Coke**  
**and Emission Performance Standards**

<b>Constituent</b>	<b>Maximum Concentration (ppmw)</b>	<b>Performance Standard (lb/MMBtu)</b>
Arsenic	2.0	7.04E-07
Cadmium	0.56	2.00E-07
Beryllium	0.51	1.82E-07
Lead	2.63	9.39E-07
Chromium	10.7	3.82E-06
Copper	4.4	1.56E-06
Manganese	12	4.29E-06
Selenium	1.0	3.50E-07
Silicon Dioxide	141	5.01E-05
Aluminum	58	2.05E-05
Iron Oxide	292	1.04E-04
Calcium Oxide	43	1.53E-05
Sodium	82	2.90E-05
Potassium	35	1.25E-05
Titanium	1.3	4.46E-07
Magnesium	7.5	2.68E-06
Nickel	385	1.37E-04
Vanadium	1560	5.56E-04

Dated **DEC 16 2010**

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 86088, HAP 28, PAL 26, and PSD-TX-1160

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

### AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates **	
			lb/hr	TPY*
1-A	Unit 1 CFB Boiler 3,300 MMBtu/hr (Normal operations, including start-ups/shutdowns)	NO <sub>x</sub>	330	1,012
		SO <sub>2</sub>	377	1,239
		CO	726	1,445
		VOC	16.5	72
		PM <sub>10</sub> (filterable)	33	145
		PM <sub>10</sub> (total)	83	361
		PM <sub>2.5</sub> (4)	83	274
		H <sub>2</sub> SO <sub>4</sub>	53	231
		NH <sub>3</sub>	16.9	37
		Hg	0.013	0.012
		HCl	16.5	46.3
		HF	1.3	3.8
		Pb	0.026	0.037
		NO <sub>x</sub> (start-up)	371	--
		SO <sub>2</sub> (start-up)	3,141	--
		H <sub>2</sub> SO <sub>4</sub> (start-up)	238	--
HCl (start-up)	665	--		
HF (start-up)	13.4	--		
1-B	Unit 2 CFB Boiler 3,300 MMBtu/hr (Normal operations, including start-ups/shutdowns)	NO <sub>x</sub>	330	1,012
		SO <sub>2</sub>	377	1,239
		CO	726	1,445
		VOC	16.5	72
		PM <sub>10</sub> (filterable)	33	145
		PM <sub>10</sub> (total)	83	361
		PM <sub>2.5</sub> (4)	83	274
		H <sub>2</sub> SO <sub>4</sub>	53	231

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates **	
			lb/hr	TPY*
		NH <sub>3</sub>	16.9	37
		Hg	0.013	0.012
		HCl	16.5	46.3
		HF	1.3	3.8
		Pb	0.026	0.037
		NO <sub>x</sub> (start-up)	371	--
		SO <sub>2</sub> (start-up)	3,141	--
		H <sub>2</sub> SO <sub>4</sub> (start-up)	238	--
		HCl (start-up)	665	--
		HF (start-up)	13.4	--
2-A	Unit 3 CFB Boiler 3,300 MMBtu/hr (Normal operations, including start-ups/shutdowns)	NO <sub>x</sub>	330	1,012
		SO <sub>2</sub>	377	1,239
		CO	726	1,445
		VOC	16.5	72
		PM <sub>10</sub> (filterable)	33	145
		PM <sub>10</sub> (total)	83	361
		PM <sub>2.5</sub> (4)	83	274
		H <sub>2</sub> SO <sub>4</sub>	53	231
		NH <sub>3</sub>	16.9	37
		Hg	0.013	0.012
		HCl	16.5	46.3
		HF	1.3	3.8
		Pb	0.026	0.037
		NO <sub>x</sub> (start-up)	371	--
		SO <sub>2</sub> (start-up)	3,141	--
		H <sub>2</sub> SO <sub>4</sub> (start-up)	238	--
		HCl (start-up)	665	--
		HF (start-up)	13.4	--
2-B	Unit 4 CFB Boiler 3,300 MMBtu/hr (Normal operations, including start-ups/shutdowns)	NO <sub>x</sub>	330	1,012
		SO <sub>2</sub>	377	1,239
		CO	726	1,445
		VOC	16.5	72
		PM <sub>10</sub> (filterable)	33	145
		PM <sub>10</sub> (total)	83	361

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates **	
			lb/hr	TPY*
		PM <sub>2.5</sub> (4)	83	274
		H <sub>2</sub> SO <sub>4</sub>	53	231
		NH <sub>3</sub>	16.9	37
		Hg	0.013	0.012
		HCl	16.5	46.3
		HF	1.3	3.8
		Pb	0.026	0.037
		NO <sub>x</sub> (start-up)	371	--
		SO <sub>2</sub> (start-up)	3,141	--
		H <sub>2</sub> SO <sub>4</sub> (start-up)	238	--
		HCl (start-up)	665	--
		HF (start-up)	13.4	--
DC-FUEL1	Unit 1 Fuel/Limestone Dust Collector	PM/PM <sub>10</sub>	0.51	2.25
		PM <sub>2.5</sub>	0.13	0.56
DC-FUEL2	Unit 2 Fuel/Limestone Dust Collector	PM/PM <sub>10</sub>	0.51	2.25
		PM <sub>2.5</sub>	0.13	0.56
DC-FUEL3	Unit 3 Fuel/Limestone Dust Collector	PM/PM <sub>10</sub>	0.51	2.25
		PM <sub>2.5</sub>	0.13	0.56
DC-FUEL4	Unit 4 Fuel/Limestone Dust Collector	PM/PM <sub>10</sub>	0.51	2.25
		PM <sub>2.5</sub>	0.13	0.56
DC-FLYASH1	Unit 1 Fly Ash Dust Collector	PM/PM <sub>10</sub>	0.19	0.81
		PM <sub>2.5</sub>	0.05	0.20
DC-FLYASH2	Unit 2 Fly Ash Dust Collector	PM/PM <sub>10</sub>	0.19	0.81
		PM <sub>2.5</sub>	0.05	0.20
DC-FLYASH3	Unit 3 Fly Ash Dust Collector	PM/PM <sub>10</sub>	0.19	0.81
		PM <sub>2.5</sub>	0.05	0.20
DC-FLYASH4	Unit 4 Fly Ash Dust Collector	PM/PM <sub>10</sub>	0.19	0.81
		PM <sub>2.5</sub>	0.05	0.20

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates **	
			lb/hr	TPY*
DCBEDASH12	Unit 1 & 2 Bed Ash Dust Collector	PM/PM <sub>10</sub>	0.34	1.48
		PM <sub>2.5</sub>	0.08	0.37
DCBEDASH34	Unit 3 & 4 Bed Ash Dust Collector	PM/PM <sub>10</sub>	0.34	1.48
		PM <sub>2.5</sub>	0.08	0.37
DC-LIME12	Unit 1 & 2 Lime Silo Dust Collector	PM/PM <sub>10</sub>	0.03	0.14
		PM <sub>2.5</sub>	0.01	0.04
DC-LIME34	Unit 3 & 4 Lime Silo Dust Collector	PM/PM <sub>10</sub>	0.03	0.14
		PM <sub>2.5</sub>	0.01	0.04
DCCARBON12	Unit 1 & 2 Carbon Silo Dust Collector	PM/PM <sub>10</sub>	0.03	0.14
		PM <sub>2.5</sub>	0.01	0.04
DCCARBON34	Unit 3 & 4 Carbon Silo Dust Collector	PM/PM <sub>10</sub>	0.03	0.14
		PM <sub>2.5</sub>	0.01	0.04
DC-RAIL-UL	Railcar Unloading Building	PM/PM <sub>10</sub>	7.29	18.21
		PM <sub>2.5</sub>	1.82	4.55
DC-CRUSHER	Crusher Building	PM/PM <sub>10</sub>	0.43	1.07
		PM <sub>2.5</sub>	0.11	0.27
SP-1	Petcoke/Coal Storage Pile (5)	PM	2.04	8.94
		PM <sub>10</sub>	1.02	4.47
		PM <sub>2.5</sub>	0.15	0.68
SP-2	Limestone Storage Pile (5)	PM	0.42	1.83
		PM <sub>10</sub>	0.21	0.91
		PM <sub>2.5</sub>	0.03	0.14
LF-1	Ash Disposal Landfill (5)	PM	0.37	1.62
		PM <sub>10</sub>	0.18	0.81
		PM <sub>2.5</sub>	0.03	0.12

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates **	
			lb/hr	TPY*
FASHLOAD1	Fly Ash #1 Truck Loading Fugitives (5)	PM	1.53	2.29
		PM <sub>10</sub>	0.38	0.56
		PM <sub>2.5</sub>	0.06	0.09
FASHLOAD2	Fly Ash #2 Truck Loading Fugitives (5)	PM	1.53	2.29
		PM <sub>10</sub>	0.38	0.56
		PM <sub>2.5</sub>	0.06	0.09
FASHLOAD3	Fly Ash #3 Truck Loading Fugitives (5)	PM	1.53	2.29
		PM <sub>10</sub>	0.38	0.56
		PM <sub>2.5</sub>	0.06	0.09
FASHLOAD4	Fly Ash #4 Truck Loading Fugitives (5)	PM	1.53	2.29
		PM <sub>10</sub>	0.38	0.56
		PM <sub>2.5</sub>	0.06	0.09
BASHLOAD12	Bed Ash #1 Truck Loading Fugitives (5)	PM	1.53	1.22
		PM <sub>10</sub>	0.38	0.30
		PM <sub>2.5</sub>	0.06	0.05
BASHLOAD34	Bed Ash #2 Truck Loading Fugitives (5)	PM	1.53	1.22
		PM <sub>10</sub>	0.38	0.30
		PM <sub>2.5</sub>	0.06	0.05
BARGE1	Barge Unloading to Hopper (5)	PM	0.64	1.07
		PM <sub>10</sub>	0.30	0.50
		PM <sub>2.5</sub>	0.05	0.08
BARGE2	Barge Hopper to CO-1 (5)	PM	0.64	1.07
		PM <sub>10</sub>	0.30	0.50
		PM <sub>2.5</sub>	0.05	0.08
CONV1	Conveyor #1 (5)	PM	0.19	0.32

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates **	
			lb/hr	TPY*
		PM <sub>10</sub>	0.09	0.15
		PM <sub>2.5</sub>	0.01	0.02
TRSFR1	CO-1 to CO-2 (5)	PM	0.10	0.16
		PM <sub>10</sub>	0.05	0.08
		PM <sub>2.5</sub>	0.01	0.01
CONV2	Conveyor #2 (5)	PM	0.38	0.64
		PM <sub>10</sub>	0.18	0.30
		PM <sub>2.5</sub>	0.03	0.05
RAILFUG	Rail Unloading Fugitives (5)	PM	0.10	0.16
		PM <sub>10</sub>	0.05	0.08
		PM <sub>2.5</sub>	0.01	0.01
TRUCK1	Truck Unloading to Hopper (5)	PM	0.64	1.07
		PM <sub>10</sub>	0.30	0.50
		PM <sub>2.5</sub>	0.05	0.08
TRUCK2	Truck Hopper to CO-3 (5)	PM	0.64	1.07
		PM <sub>10</sub>	0.30	0.50
		PM <sub>2.5</sub>	0.05	0.08
CONV3	Conveyor #3 (5)	PM	0.10	0.16
		PM <sub>10</sub>	0.05	0.08
		PM <sub>2.5</sub>	0.01	0.01
TRSFR2	CO-3 to CO-4 or CO-5 (5)	PM	0.10	0.16
		PM <sub>10</sub>	0.05	0.08
		PM <sub>2.5</sub>	0.01	0.01
TRSFR3	CO-2 to CO-4 or CO-5 (5)	PM	0.10	0.16
		PM <sub>10</sub>	0.05	0.08
		PM <sub>2.5</sub>	0.01	0.01
CONV4	Conveyor #4 (5)	PM	3.20	5.33

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates **	
			lb/hr	TPY*
		PM <sub>10</sub>	1.51	2.52
		PM <sub>2.5</sub>	0.23	0.38
CONV5	Conveyor #5 (5)	PM	3.20	5.33
		PM <sub>10</sub>	1.51	2.52
		PM <sub>2.5</sub>	0.23	0.38
TRSF4	CO-4 to Mobile Stacker (5)	PM	0.10	0.16
		PM <sub>10</sub>	0.05	0.08
		PM <sub>2.5</sub>	0.01	0.01
TRSF5	CO-5 to Mobile Stacker (5)	PM	0.10	0.16
		PM <sub>10</sub>	0.05	0.08
		PM <sub>2.5</sub>	0.01	0.01
TRSF6	Mobile Reclaim to CO-6 or CO-7 (5)	PM	0.08	0.16
		PM <sub>10</sub>	0.04	0.08
		PM <sub>2.5</sub>	0.01	0.01
CONV6	Conveyors #6 and #7 (5)	PM	3.07	6.40
		PM <sub>10</sub>	1.45	3.03
		PM <sub>2.5</sub>	0.22	0.46
TRSF7	CO-6 or CO-7 to CO-8 or CO-9 (5)	PM	0.08	0.16
		PM <sub>10</sub>	0.04	0.08
		PM <sub>2.5</sub>	0.01	0.01
CONV7	Conveyors #8 and #9 (5)	PM	0.08	0.16
		PM <sub>10</sub>	0.04	0.08
		PM <sub>2.5</sub>	0.01	0.03
CONV8	Conveyors #10 and #11 (5)	PM	0.15	0.32
		PM <sub>10</sub>	0.07	0.15
		PM <sub>2.5</sub>	0.03	0.06
COOLTWR1	Cooling Tower #1	PM	1.21	5.29

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates **	
			lb/hr	TPY*
		PM <sub>10</sub>	0.60	2.65
		PM <sub>2.5</sub>	0.00	0.02
COOLTWR2	Cooling Tower #2	PM	1.21	5.29
		PM <sub>10</sub>	0.60	2.65
		PM <sub>2.5</sub>	0.00	0.02
COOLTWR3	Cooling Tower #3	PM	1.21	5.29
		PM <sub>10</sub>	0.60	2.65
		PM <sub>2.5</sub>	0.00	0.02
COOLTWR4	Cooling Tower #4	PM	1.21	5.29
		PM <sub>10</sub>	0.60	2.65
		PM <sub>2.5</sub>	0.00	0.02
EMGEN1	Diesel-Fired Emergency Generator 1	NO <sub>x</sub>	42.50	10.60
		CO	23.30	5.80
		PM <sub>10</sub>	1.07	0.27
		PM <sub>2.5</sub>	1.07	0.27
		VOC	2.55	0.64
		SO <sub>2</sub>	1.62	0.41
		H <sub>2</sub> SO <sub>4</sub>	0.13	0.03
EMGEN2	Diesel-Fired Emergency Generator 2	NO <sub>x</sub>	42.50	10.60
		CO	23.30	5.80
		PM <sub>10</sub>	1.07	0.27
		PM <sub>2.5</sub>	1.07	0.27
		VOC	2.55	0.64
		SO <sub>2</sub>	1.62	0.41
		H <sub>2</sub> SO <sub>4</sub>	0.13	0.03
FIREWTRPMP	Main Diesel-Fired Fire Water Pump	NO <sub>x</sub>	1.65	0.41

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates **	
			lb/hr	TPY*
		CO	1.43	0.36
		PM <sub>10</sub>	0.08	0.02
		PM <sub>2.5</sub>	0.08	0.02
		VOC	0.62	0.16
		SO <sub>2</sub>	0.10	0.03
		H <sub>2</sub> SO <sub>4</sub>	0.01	0.00
T-WTRPMP	Diesel Tank for Main Diesel-Fired Fire Water Pump	VOC	0.17	0.001
T-EMGEN	Diesel Tank for Emergency Generators	VOC	0.17	0.002
TNK-FO1	No. 2 Fuel Oil Storage Tank #1 for CFB Startup	VOC	0.32	0.04
TNK-FO2	No. 2 Fuel Oil Storage Tank #2 for CFB Startup	VOC	0.32	0.04
T-DSLVEH	Diesel Storage Tank for Plant Vehicles	VOC	0.17	0.004
T-GASVEH	Gasoline Storage Tank for Plant Vehicles	VOC	7.38	1.51
TNK-ACID	Acid Storage Tank	H <sub>2</sub> SO <sub>4</sub>	0.21	0.004
FUG-NH3A	Fugitives: Ammonia (5)	NH <sub>3</sub>	0.10	0.46
FUG-NH3B	Fugitives: Ammonia (5)	NH <sub>3</sub>	0.10	0.46
FUG-FO	Fugitives: Fuel Oil (5)	VOC	0.15	0.67

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.

(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- (3) NO<sub>x</sub> - total oxides of nitrogen  
CO - carbon monoxide  
VOC - volatile organic compounds as defined in Title 30 TAC § 101.1  
PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>.  
PM<sub>10</sub> - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.  
PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter.  
SO<sub>2</sub> - sulfur dioxide  
H<sub>2</sub>SO<sub>4</sub> - sulfuric acid  
HCl - hydrogen chloride  
HF - hydrogen fluoride  
Pb - lead  
Hg - mercury  
NH<sub>3</sub> - ammonia
- (4) Compliance with PM<sub>2.5</sub> emission limits to be determined upon promulgation of EPA test methods.
- (5) Fugitives emission rate is an estimate and compliance is demonstrated by meeting the applicable Special Condition requirements and permit application representations.

\* Annual emission limits for CFB boilers include emissions from startup and shutdown. For combustion sources and storage tanks, compliance is based on a rolling 12-month period. For material handling sources, compliance with annual limits is based on applicable Special Conditions and permit application representations.

\*\* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year 8,760

Dated: DEC 16 2010