

# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

Corpus Christi Cogeneration, LLC

AUTHORIZING THE OPERATION OF

Corpus Christi Cogeneration  
Electric Services

LOCATED AT

Nueces County, Texas

Latitude 27° 48' 50" Longitude 97° 25' 42"

Regulated Entity Number: RN100224302

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site, emission units and affected source listed in this permit. Operations of the site, emission units and affected source listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site, emission units and affected source authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site, emission units and affected source.

Permit No: 02122 Issuance Date: \_\_\_\_\_

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For the Commission

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## **General Terms and Conditions**

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

## **Special Terms and Conditions: Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting**

1. Permit holder shall comply with the following requirements:
  - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
  - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

- C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
  - D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
  - E. Emission units subject to 40 CFR Part 63, Subpart ZZZZ, as identified in the attached Applicable Requirements Summary table, are subject to 30 TAC Chapter 113, Subchapter C, §113.1090 which incorporates the 40 CFR Part 63 Subpart by reference.
2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
- A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
  - B. Title 30 TAC § 101.3 (relating to Circumvention)
  - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
  - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
  - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
  - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
  - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
  - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
  - I. Title 30 TAC § 101.222 (relating to Demonstrations)
  - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

- A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
- (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
  - (ii) Title 30 TAC § 111.111(a)(1)(E)
  - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
  - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:
    - (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
    - (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

- (3) Records of all observations shall be maintained.
- (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (5) Compliance Certification:
  - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
  - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required

under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.
- B. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
  - C. Permit holders for sites that have materials handling, construction, roads, streets, alleys, and parking lots shall comply with the following requirements:
    - (i) Title 30 TAC § 111.143 (relating to Materials Handling)
    - (ii) Title 30 TAC § 111.145 (relating to Construction and Demolition)
    - (iii) Title 30 TAC § 111.147 (relating to Roads, Streets, and Alleys)
    - (iv) Title 30 TAC § 111.149 (relating to Parking Lots)
4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
- A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
  - B. Title 40 CFR § 60.8 (relating to Performance Tests)
  - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
  - D. Title 40 CFR § 60.12 (relating to Circumvention)
  - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
  - F. Title 40 CFR § 60.14 (relating to Modification)
  - G. Title 40 CFR § 60.15 (relating to Reconstruction)
  - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

5. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

### **Additional Monitoring Requirements**

6. The permit holder shall comply with the periodic monitoring requirements as specified in the attached “Periodic Monitoring Summary” upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the “Periodic Monitoring Summary,” for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

### **New Source Review Authorization Requirements**

7. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
  - A. Are incorporated by reference into this permit as applicable requirements
  - B. Shall be located with this operating permit
  - C. Are not eligible for a permit shield
8. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
9. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit’s compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, material safety data sheets (MSDS),

chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144.

- A. If applicable, monitoring of control device performance or general work practice standards shall be made in accordance with the TCEQ Periodic Monitoring Guidance document.
  - B. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).
10. The permit holder shall comply with the following requirements for Air Quality Standard Permits:
- A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit
  - B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit
  - C. Requirements of the Electric Generating Unit Standard Permit for facilities located in the West Texas region based on the information contained in the registration application.
  - D. Boiler Standard Permit

### **Compliance Requirements**

11. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
12. Use of Discrete Emission Credits to comply with the applicable requirements:
- A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117

- (iii) If applicable, offsets for Title 30 TAC Chapter 116
  - (iv) Temporarily exceed state NSR permit allowables
- B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
- (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
  - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
  - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
  - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

### **Protection of Stratospheric Ozone**

13. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone.
- A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

### **Alternative Requirements**

14. The permit holder shall comply with the approved alternative means of control (AMOC); alternative monitoring, recordkeeping, or reporting requirements; or requirements determined to be equivalent to an otherwise applicable requirement contained in the Alternative Requirements attachment of this permit. Units complying with an approved alternative requirement have reference to the approval in the Applicable Requirements summary listing for the unit. The permit holder shall maintain the original documentation, from (the EPA Administrator and/or TCEQ Executive Director), demonstrating the method

or limitation utilized. Documentation shall be maintained and made available in accordance with 30 TAC § 122.144.

### **Permit Location**

15. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

### **Permit Shield (30 TAC § 122.148)**

16. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

### **Acid Rain Permit Requirements**

17. For units CU1 and CU2, located at the affected source identified by ORIS/Facility code 55206, the designated representative and the owner or operator, as applicable, shall comply with the following Acid Rain Permit requirements.

#### **A. General Requirements**

- (i) Under 30 TAC § 122.12(1) and 40 CFR Part 72, the Acid Rain Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP) and have an independent public comment process which may be separate from, or combined with the FOP.
- (ii) The owner and operator shall comply with the requirements of 40 CFR Part 72 and 40 CFR Part 76. Any noncompliance with the Acid Rain Permit will be considered noncompliance with the FOP and may be subject to enforcement action.
- (iii) The owners and operators of the affected source shall operate the source and the unit in compliance with the requirements of this Acid Rain Permit and all other applicable State and federal requirements.

- (iv) The owners and operators of the affected source shall comply with the General Terms and Conditions of the FOP that incorporates this Acid Rain Permit.
- (v) The term for the Acid Rain permit shall commence with the issuance of the FOP that incorporates the Acid Rain permit and shall be run concurrent with the remainder of the term of the FOP. Renewal of the Acid Rain permit shall coincide with the renewal of the FOP that incorporates the Acid Rain permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

B. Monitoring Requirements

- (i) The owners and operators, and the designated representative, of the affected source and each affected unit at the source shall comply with the monitoring requirements contained 40 CFR Part 75.
- (ii) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 and any other credible evidence shall be used to determine compliance by the affected source with the acid rain emissions limitations and emissions reduction requirements for SO<sub>2</sub> and NO<sub>x</sub> under the ARP.
- (iii) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emission of other pollutants or other emissions characteristics at the unit under other applicable requirements of the FCAA Amendments (42 U.S.C. 7401, as amended November 15, 1990) and other terms and conditions of the operating permit for the source.

C. SO<sub>2</sub> emissions requirements

- (i) The owners and operators of each source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for SO<sub>2</sub>.
- (ii) As of the allowance transfer deadline the owners and operators of the affected source and each affected unit at the source shall hold, in the unit's compliance subaccount, allowances in an amount not less than the total annual emissions of SO<sub>2</sub> for the previous calendar year.
- (iii) Each ton of SO<sub>2</sub> emitted in excess of the acid rain emissions limitations for SO<sub>2</sub> shall constitute a separate violation of the FCAA amendments.

- (iv) An affected unit shall be subject to the requirements under (i) and (ii) of the SO<sub>2</sub> emissions requirements as follows:
  - (1) Starting January 1, 2000, an affected unit under 40 CFR § 72.6(a)(2); or
  - (2) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 40 CFR § 72.6(a)(3).
- (v) Allowances shall be held in, deducted from, or transferred into or among Allowance Tracking System accounts in accordance with the requirements of the ARP.
- (vi) An allowance shall not be deducted, for compliance with the requirements of this permit, in a calendar year before the year for which the allowance was allocated.
- (vii) An allowance allocated by the EPA Administrator or under the ARP is a limited authorization to emit SO<sub>2</sub> in accordance with the ARP. No provision of the ARP, Acid Rain permit application, this Acid Rain Permit, or an exemption under 40 CFR §§ 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (viii) An allowance allocated by the EPA Administrator under the ARP does not constitute a property right.

D. NO<sub>x</sub> Emission Requirements

- (i) The owners and operators of the source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for NO<sub>x</sub> under 40 CFR Part 76.

E. Excess emissions requirements for SO<sub>2</sub> and NO<sub>x</sub>.

- (i) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
- (ii) If an affected source has excess emissions in any calendar year shall, as required by 40 CFR Part 77:
  - (1) Pay, without demand, the penalty required and pay, upon demand, the interest on that penalty.
  - (2) Comply with the terms of an approved offset plan.

F. Recordkeeping and Reporting Requirements

- (i) Unless otherwise provided, the owners and operators of the affected source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the EPA Administrator.
  - (1) The certificate of representation for the designated representative for the source and each affected unit and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR § 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative.
  - (2) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping (rather than a five-year period cited in 30 TAC § 122.144), the 3-year period shall apply.
  - (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the ARP or relied upon for compliance certification.
  - (4) Copies of all documents used to complete an acid rain permit application and any other submission under the ARP or to demonstrate compliance with the requirements of the ARP.
- (ii) The designated representative of an affected source and each affected unit at the source shall submit the reports required under the ARP including those under 40 CFR Part 72, Subpart I and 40 CFR Part 75.

G. Liability

- (i) Any person who knowingly violates any requirement or prohibition of the ARP, a complete acid rain permit application, an acid rain permit, or a written exemption under 40 CFR §§ 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to FCAA § 113(c).
- (ii) Any person who knowingly makes a false, material statement in any record, submission, or report under the ARP shall be subject to

criminal enforcement pursuant to FCAA § 113(c) and 18 U.S.C. 1001.

- (iii) No permit revision shall excuse any violation of the requirements of the ARP that occurs prior to the date that the revision takes effect.
  - (iv) The affected source and each affected unit shall meet the requirements of the ARP contained in 40 CFR Parts 72 through 78.
  - (v) Any provision of the ARP that applies to an affected source or the designated representative of an affected source shall also apply to the owners and operators of such source and of the affected units at the source.
  - (vi) Any provision of the ARP that applies to an affected unit (including a provision applicable to the DR of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR § 72.44 (Phase II repowering extension plans) and 40 CFR § 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR §§ 75.16, 75.17, and 75.18), the owners and operators and the DR of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the DR and that is located at a source of which they are not owners or operators or the DR.
  - (vii) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or DR of such source or unit, shall be a separate violation of the FCAA Amendments.
- H. Effect on other authorities. No provision of the ARP, an acid rain permit application, an acid rain permit, or an exemption under 40 CFR §§ 72.7 or 72.8 shall be construed as:
- (i) Except as expressly provided in Title IV of the FCAA Amendments, exempting or excluding the owners and operators and, to the extent applicable, the DR of an affected source or affected unit from compliance with any other provision of the FCAA Amendments, including the provisions of Title I of the FCAA Amendments relating to applicable National Ambient Air Quality Standards or State Implementation Plans.
  - (ii) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the FCAA Amendments.

- (iii) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law.
  - (iv) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
  - (v) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.
- I. The number of SO<sub>2</sub> allowances allocated by the EPA in 40 CFR Part 73 is enforceable only by the EPA Administrator.

### **Clean Air Interstate Rule Permit Requirements**

18. For units CU1 and CU2, located at the site identified by ORIS/Facility code 55206, the designated representative and the owner or operator, as applicable, shall comply with the following Clean Air Interstate Rule (CAIR) Permit requirements. Until approval of the Texas CAIR SIP, the permit holder shall comply with the equivalent requirements of 40 CFR Part 97 in place of the referenced 40 CFR Part 96 requirements in the Texas CAIR permit and 30 TAC Chapter 122 requirements.

#### **A. General Requirements**

- (i) Under 30 TAC § 122.420(b) and 40 CFR §§ 96.120(b) and 96.220(b) the CAIR Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP).
- (ii) The owners and operators of the CAIR NO<sub>x</sub> and the CAIR SO<sub>2</sub> source shall operate the source and the unit in compliance with the requirements of this CAIR permit and all other applicable State and federal requirements.
- (iii) The owners and operators of the CAIR NO<sub>x</sub> and the CAIR SO<sub>2</sub> source shall comply with the General Terms and Conditions of the FOP that incorporates this CAIR Permit.
- (iv) The term for the initial CAIR permit shall commence with the issuance of the revision containing the CAIR permit and shall be the remaining term for the FOP that incorporates the CAIR permit. Renewal of the initial CAIR permit shall coincide with the renewal of the FOP that incorporates the CAIR permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

B. Monitoring and Reporting Requirements

- (i) The owners and operators, and the CAIR designated representative, of the CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements contained 40 CFR Part 96, Subpart HH.
- (ii) The owners and operators, and the CAIR designated representative, of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements contained 40 CFR Part 96, Subpart HHH.
- (iii) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH and any other credible evidence shall be used to determine compliance by the CAIR NO<sub>x</sub> source with the CAIR NO<sub>x</sub> emissions limitation.
- (iv) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH and any other credible evidence shall be used to determine compliance by the CAIR SO<sub>2</sub> source with the CAIR SO<sub>2</sub> emissions limitation.

C. NO<sub>x</sub> emissions requirements

- (i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> allowances available for compliance deductions for the control period under 40 CFR § 96.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO<sub>x</sub> units at the source, as determined in accordance with the requirements of 40 CFR Part 96, Subpart HH.
- (ii) A CAIR NO<sub>x</sub> unit shall be subject to the requirements of paragraph C.(i) of this CAIR Permit starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 96.170(b)(1), (2), or (5).
- (iii) A CAIR NO<sub>x</sub> allowance shall not be deducted, for compliance with the requirements of this permit, for a control period in a calendar year before the year for which the CAIR NO<sub>x</sub> allowance was allocated.
- (iv) CAIR NO<sub>x</sub> allowances shall be held in, deducted from or transferred into or among CAIR NO<sub>x</sub> Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FF or Subpart GG.

- (v) A CAIR NO<sub>x</sub> allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO<sub>x</sub> Annual Trading Program. No provision of the CAIR NO<sub>x</sub> Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR § 96.105 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.
- (vi) A CAIR NO<sub>x</sub> allowance does not constitute a property right.
- (vii) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FF or Subpart GG, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> allowance to or from a CAIR NO<sub>x</sub> unit's compliance account is incorporated automatically in this CAIR permit.

D. NO<sub>x</sub> excess emissions requirement

- (i) If a CAIR NO<sub>x</sub> source emits nitrogen oxides during any control period in excess of the CAIR NO<sub>x</sub> emissions limitation, the owners and operators of the source and each CAIR NO<sub>x</sub> unit at the source shall surrender the CAIR NO<sub>x</sub> allowances required for deduction under 40 CFR § 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law.
- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable State law.

E. SO<sub>2</sub> emissions requirements

- (i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall hold, in the source's compliance account, CAIR SO<sub>2</sub> allowances available for compliance deductions for the control period under 40 CFR § 96.254(a) and (b) in an amount not less than the tons of total sulfur dioxides emissions for the control period from all CAIR SO<sub>2</sub> units at the source, as determined in accordance with the requirements of 40 CFR Part 96, Subpart HHH.
- (ii) A CAIR SO<sub>2</sub> unit shall be subject to the requirements of paragraph E.(i) of this CAIR Permit starting on the later of January 1, 2010, or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 96.270(b)(1), (2), or (5).
- (iii) A CAIR SO<sub>2</sub> allowance shall not be deducted, for compliance with the requirements of this permit, for a control period in a calendar

year before the year for which the CAIR SO<sub>2</sub> allowance was allocated.

- (iv) CAIR SO<sub>2</sub> allowances shall be held in, deducted from, or transferred into or among CAIR SO<sub>2</sub> Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FFF or Subpart GGG.
- (v) A CAIR SO<sub>2</sub> allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO<sub>2</sub> Trading Program. No provision of the CAIR SO<sub>2</sub> Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR § 96.205 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.
- (vi) A CAIR SO<sub>2</sub> allowance does not constitute a property right.
- (vii) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or Subpart GGG, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from a CAIR SO<sub>2</sub> unit's compliance account is incorporated automatically in this CAIR permit.

F. SO<sub>2</sub> excess emissions requirements

- (i) If a CAIR SO<sub>2</sub> source emits sulfur dioxides during any control period in excess of the CAIR SO<sub>2</sub> emissions limitation, the owners and operators of the source and each CAIR SO<sub>2</sub> unit at the source shall surrender the CAIR SO<sub>2</sub> allowances required for deduction under 40 CFR § 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law.
- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable State law.

G. Recordkeeping and Reporting Requirements

- (i) Unless otherwise provided, the owners and operators of the CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source and the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.

- (1) The certificate of representation under 40 CFR §§ 96.113 and 96.213 for the CAIR NO<sub>x</sub> designated representative for the source and each CAIR NO<sub>x</sub> unit and the CAIR SO<sub>2</sub> designated representative for the source and each CAIR SO<sub>2</sub> unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5 year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR §§ 96.113 and 96.213 changing the CAIR designated representative.
  - (2) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH and Subpart HHH, provided that to the extent that these subparts provide for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO<sub>x</sub> Annual Trading Program and CAIR SO<sub>2</sub> Trading Program or relied upon for compliance determinations.
  - (4) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO<sub>x</sub> Annual Trading Program and CAIR SO<sub>2</sub> Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>x</sub> Annual Trading Program and CAIR SO<sub>2</sub> Trading Program.
- (ii) The CAIR designated representative of a CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source and a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall submit the reports required under the CAIR NO<sub>x</sub> Annual Trading Program and the CAIR SO<sub>2</sub> Trading Program including those under 40 CFR Part 96, Subpart HH and Subpart HHH.
- H. The CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit shall meet the requirements of the CAIR NO<sub>x</sub> Annual Trading Program contained in 40 CFR Part 96, Subparts AA through II.
- I. The CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit shall meet the requirements of the CAIR SO<sub>2</sub> Trading Program contained in 40 CFR Part 96, Subparts AAA through III.
- J. Any provision of the CAIR NO<sub>x</sub> Annual Trading Program and the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR NO<sub>x</sub> source or CAIR SO<sub>2</sub> source or the CAIR designated representative of a CAIR NO<sub>x</sub> source or

CAIR SO<sub>2</sub> source shall also apply to the owners and operators of such source and the units at the source.

- K. Any provision of the CAIR NO<sub>x</sub> Annual Trading Program and the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR NO<sub>x</sub> unit or CAIR SO<sub>2</sub> unit or the CAIR designated representative of a CAIR NO<sub>x</sub> unit or CAIR SO<sub>2</sub> unit shall also apply to the owners and operators of such unit.
- L. No provision of the CAIR NO<sub>x</sub> Annual Trading Program, CAIR SO<sub>2</sub> Trading Program, a CAIR permit application, a CAIR permit, or an exemption under 40 CFR §§ 96.105 or 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO<sub>x</sub> source or CAIR NO<sub>x</sub> unit or a CAIR SO<sub>2</sub> source or CAIR SO<sub>2</sub> unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

## **Attachments**

**Applicable Requirements Summary**

**Additional Monitoring Requirements**

**Permit Shield**

**New Source Review Authorization References**

**Alternative Requirement**

## **Applicable Requirements Summary**

**Unit Summary ..... 22**

**Applicable Requirements Summary ..... 24**

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRPBOILER	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	AB1, AB2	60DB-FG	40 CFR Part 60, Subpart Db	40 CFR 60 Subpart Db fuel type = Gaseous fossil fuel other than natural gas and coal-derived synthetic fuel meeting the definition of natural gas.
GRPBOILER	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	AB1, AB2	60DB-MG	40 CFR Part 60, Subpart Db	40 CFR 60 Subpart Db fuel type = Natural gas + gaseous fossil fuel other than natural gas and coal-derived synthetic fuel meeting the definition of natural gas.
GRPBOILER	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	AB1, AB2	60DB-NG	40 CFR Part 60, Subpart Db	40 CFR 60 Subpart Db fuel type = Natural gas.
GRPDB	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	CU1, CU2	60Da-FG	40 CFR Part 60, Subpart Da	40 CFR 60 Subpart Da fuel type = Gaseous fossil fuel.
GRPDB	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	CU1, CU2	60Da-MG	40 CFR Part 60, Subpart Da	40 CFR 60 Subpart Da fuel type = Natural gas + gaseous fossil fuel
GRPDB	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	CU1, CU2	60Da-NG	40 CFR Part 60, Subpart Da	40 CFR 60 Subpart Da fuel type = Natural gas
GRPSTACK	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	AB1, AB2, CU1, CU2	R111	30 TAC Chapter 111, Visible Emissions	No changing attributes.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
EMENG	SRIC ENGINES	N/A	63ZZZZ-ENG	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GRPTURBINE	STATIONARY TURBINES	CU1, CU2	60GG	40 CFR Part 60, Subpart GG	No changing attributes.

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPBOILER	EU	6oDB-FG	SO <sub>2</sub>	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRPBOILER	EU	6oDB-FG	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRPBOILER	EU	6oDB-FG	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRPBOILER	EU	6oDB-FG	NO <sub>x</sub>	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPBOILER	EU	6oDB-MG	SO <sub>2</sub>	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRPBOILER	EU	6oDB-MG	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRPBOILER	EU	6oDB-MG	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRPBOILER	EU	6oDB-MG	NO <sub>x</sub>	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPBOILER	EU	6oDB-NG	SO <sub>2</sub>	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRPBOILER	EU	6oDB-NG	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRPBOILER	EU	6oDB-NG	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
GRPBOILER	EU	6oDB-NG	NO <sub>x</sub>	40 CFR Part 60, Subpart Db	§ 60.44b(a)(1)(i) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Except as in §60.44b(k), (l), on/after §60.8 test, no facility combusting natural gas and distillate oil (low heat release rate) shall discharge gases containing NO <sub>x</sub> in excess of 43 ng/J heat input.	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(3) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d) § 60.48b(e) [G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(i) § 60.49b(v) § 60.49b(w)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPDB	EU	60Da-FG	PM (OPACITY)	40 CFR Part 60, Subpart Da	§ 60.42Da(b) § 60.48Da(c)	No owner or operator shall discharge any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators that elect to install, calibrate, maintain and operate a CEMS for measuring PM emissions are exempt from the opacity standard.	§ 60.48Da(q) [G]§ 60.49Da(a)(3) § 60.50Da(a) § 60.50Da(b)(3) [G]§ 60.50Da(e)	[G]§ 60.52Da(b)	§ 60.51Da(a) § 60.51Da(f) [G]§ 60.51Da(h) § 60.51Da(i) § 60.51Da(j) § 60.51Da(k)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPDB	EU	60Da-FG	NO <sub>x</sub>	40 CFR Part 60, Subpart Da	§ 60.44Da(d)(1) § 60.48Da(c)	No owner or operator shall discharge any gases that contain NO <sub>x</sub> (expressed as NO <sub>2</sub> ) in excess of 200 ng/J (1.6 lb/MWh) gross energy output, based on a 30-day rolling average basis.	§ 60.48Da(b) § 60.48Da(c) § 60.48Da(d) § 60.48Da(h) § 60.48Da(i) [G]§ 60.48Da(k)(2) [G]§ 60.48Da(k)(3) § 60.49Da(c)(1) § 60.49Da(e) § 60.49Da(f)(1) § 60.49Da(g) § 60.49Da(h) § 60.49Da(h)(2) § 60.49Da(h)(4) § 60.49Da(i) § 60.49Da(i)(1) § 60.49Da(i)(2) § 60.49Da(i)(3) § 60.49Da(i)(3)(i) § 60.49Da(i)(3)(ii) § 60.49Da(i)(4) § 60.49Da(j)(2) § 60.49Da(j)(3) § 60.49Da(j)(4) [G]§ 60.49Da(k) § 60.49Da(n) [G]§ 60.49Da(s) [G]§ 60.49Da(w) § 60.50Da(a) [G]§ 60.50Da(d) [G]§ 60.50Da(e) § 60.50Da(f)	[G]§ 60.49Da(s) [G]§ 60.49Da(w)	[G]§ 60.49Da(s) [G]§ 60.49Da(w) § 60.51Da(a) § 60.51Da(b) § 60.51Da(b)(1) § 60.51Da(b)(2) § 60.51Da(b)(4) § 60.51Da(b)(5) § 60.51Da(b)(6) § 60.51Da(b)(7) § 60.51Da(b)(8) § 60.51Da(b)(9) [G]§ 60.51Da(c) § 60.51Da(f) [G]§ 60.51Da(h) § 60.51Da(j) § 60.51Da(k)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPDB	EU	60Da-FG	SO <sub>2</sub>	40 CFR Part 60, Subpart Da	§ 60.43Da(b)(2) § 60.43Da(g) § 60.48Da(c)	No owner or operator shall discharge any gases that contain sulfur dioxide in excess of 100 percent of the potential combustion concentration (zero percent reduction) when emissions are less than 86 ng/J (0.20 lb/MMBtu) heat input.	§ 60.48Da(e) § 60.48Da(f) § 60.48Da(g)(1) § 60.48Da(g)(2) § 60.48Da(h) § 60.49Da(b) § 60.49Da(b)(3) § 60.49Da(e) § 60.49Da(f)(1) § 60.49Da(h) § 60.49Da(h)(1) § 60.49Da(h)(3) § 60.49Da(h)(4) § 60.49Da(j)(1) § 60.49Da(j)(3) § 60.49Da(j)(4) § 60.50Da(a) [G]§ 60.50Da(c) [G]§ 60.50Da(e) § 60.50Da(f) * See Alternative Requirements	None	§ 60.51Da(a) § 60.51Da(b) § 60.51Da(b)(1) § 60.51Da(b)(2) § 60.51Da(b)(3) § 60.51Da(b)(4) § 60.51Da(b)(5) § 60.51Da(b)(6) § 60.51Da(b)(7) § 60.51Da(b)(8) § 60.51Da(b)(9) [G]§ 60.51Da(c) [G]§ 60.51Da(d) [G]§ 60.51Da(e) § 60.51Da(f) [G]§ 60.51Da(h) § 60.51Da(j) § 60.51Da(k)
GRPDB	EU	60Da-MG	PM	40 CFR Part 60, Subpart Da	§ 60.42Da(a)(1) § 60.48Da(a) § 60.48Da(c)	No owner or operator shall discharge any gases that contain PM in excess of 13 ng/J (0.03 lb/MMBtu) heat input derived from the combustion of solid, liquid, or gaseous fuel.	§ 60.50Da(a) § 60.50Da(b)(1) [G]§ 60.50Da(b)(2) [G]§ 60.50Da(e) § 60.50Da(f)	None	§ 60.51Da(a) [G]§ 60.51Da(h) § 60.51Da(j)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPDB	EU	6oDa-MG	PM (OPACITY)	40 CFR Part 60, Subpart Da	§ 60.42Da(b) § 60.48Da(c)	No owner or operator shall discharge any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators that elect to install, calibrate, maintain and operate a CEMS for measuring PM emissions are exempt from the opacity standard.	§ 60.48Da(q) [G]§ 60.49Da(a)(3) § 60.50Da(a) § 60.50Da(b)(3) [G]§ 60.50Da(e)	[G]§ 60.52Da(b)	§ 60.51Da(a) § 60.51Da(f) [G]§ 60.51Da(h) § 60.51Da(i) § 60.51Da(j) § 60.51Da(k)
GRPDB***	EU	6oDa-MG	NOx	40 CFR Part 60, Subpart Da	§ 60.44Da(d)(1) § 60.48Da(c)	No owner or operator shall discharge any gases that contain NOx (expressed as NO2) in excess of 200 ng/J (1.6 lb/MWh) gross energy output, based on a 30-day rolling average basis.	§ 60.48Da(e) § 60.48Da(f) § 60.48Da(g)(1) § 60.48Da(h) § 60.48Da(i) [G]§ 60.48Da(k)(2) [G]§ 60.48Da(k)(3) § 60.49Da(c)(2) § 60.49Da(e) § 60.49Da(f)(1) § 60.49Da(h) § 60.49Da(h)(2) § 60.49Da(h)(4) § 60.49Da(j)(2) § 60.49Da(j)(3) § 60.49Da(j)(4) [G]§ 60.49Da(k) § 60.49Da(n) [G]§ 60.49Da(s) [G]§ 60.49Da(w) § 60.50Da(a) [G]§ 60.50Da(d) [G]§ 60.50Da(e) § 60.50Da(f)	[G]§ 60.49Da(s) [G]§ 60.49Da(w)	[G]§ 60.49Da(s) [G]§ 60.49Da(w) § 60.51Da(a) § 60.51Da(b) § 60.51Da(b)(1) § 60.51Da(b)(2) § 60.51Da(b)(4) § 60.51Da(b)(5) § 60.51Da(b)(6) § 60.51Da(b)(7) § 60.51Da(b)(8) § 60.51Da(b)(9) [G]§ 60.51Da(c) § 60.51Da(f) [G]§ 60.51Da(h) § 60.51Da(j) § 60.51Da(k)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPDB	EU	60Da-MG	SO <sub>2</sub>	40 CFR Part 60, Subpart Da	§ 60.43Da(b)(2) § 60.43Da(g) § 60.48Da(c)	No owner or operator shall discharge any gases that contain sulfur dioxide in excess of 100 percent of the potential combustion concentration (zero percent reduction) when emissions are less than 86 ng/J (0.20 lb/MMBtu) heat input.	§ 60.48Da(e) § 60.48Da(f) § 60.48Da(g)(1) § 60.48Da(g)(2) § 60.48Da(h) § 60.49Da(b) § 60.49Da(b)(3) § 60.49Da(e) § 60.49Da(f)(1) § 60.49Da(h) § 60.49Da(h)(1) § 60.49Da(h)(3) § 60.49Da(h)(4) § 60.49Da(j)(1) § 60.49Da(j)(3) § 60.49Da(j)(4) § 60.50Da(a) [G]§ 60.50Da(c) [G]§ 60.50Da(e) § 60.50Da(f) * See Alternative Requirements	None	§ 60.51Da(a) § 60.51Da(b) § 60.51Da(b)(1) § 60.51Da(b)(2) § 60.51Da(b)(3) § 60.51Da(b)(4) § 60.51Da(b)(5) § 60.51Da(b)(6) § 60.51Da(b)(7) § 60.51Da(b)(8) § 60.51Da(b)(9) [G]§ 60.51Da(c) [G]§ 60.51Da(d) [G]§ 60.51Da(e) § 60.51Da(f) [G]§ 60.51Da(h) § 60.51Da(j) § 60.51Da(k)
GRPDB	EU	60Da-NG	PM	40 CFR Part 60, Subpart Da	§ 60.42Da(a)(1) § 60.48Da(a) § 60.48Da(c)	No owner or operator shall discharge any gases that contain PM in excess of 13 ng/J (0.03 lb/MMBtu) heat input derived from the combustion of solid, liquid, or gaseous fuel.	§ 60.50Da(a) § 60.50Da(b)(1) [G]§ 60.50Da(b)(2) [G]§ 60.50Da(e) § 60.50Da(f)	None	§ 60.51Da(a) [G]§ 60.51Da(h) § 60.51Da(j)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPDB	EU	60Da-NG	PM (OPACITY)	40 CFR Part 60, Subpart Da	§ 60.42Da(b) § 60.48Da(c)	No owner or operator shall discharge any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators that elect to install, calibrate, maintain and operate a CEMS for measuring PM emissions are exempt from the opacity standard.	§ 60.48Da(q) [G]§ 60.49Da(a)(3) § 60.50Da(a) § 60.50Da(b)(3) [G]§ 60.50Da(e)	[G]§ 60.52Da(b)	§ 60.51Da(a) § 60.51Da(f) [G]§ 60.51Da(h) § 60.51Da(i) § 60.51Da(j) § 60.51Da(k)
GRPDB	EU	60Da-NG	NOx	40 CFR Part 60, Subpart Da	§ 60.44Da(d)(1) § 60.48Da(c)	No owner or operator shall discharge any gases that contain NOx (expressed as NO2) in excess of 200 ng/J (1.6 lb/MWh) gross energy output, based on a 30-day rolling average basis.	§ 60.48Da(e) § 60.48Da(f) § 60.48Da(g)(1) § 60.48Da(h) § 60.48Da(i) [G]§ 60.48Da(k)(2) [G]§ 60.48Da(k)(3) § 60.49Da(c)(2) § 60.49Da(e) § 60.49Da(f)(1) § 60.49Da(h) § 60.49Da(h)(2) § 60.49Da(h)(4) § 60.49Da(j)(2) § 60.49Da(j)(3) § 60.49Da(j)(4) [G]§ 60.49Da(k) § 60.49Da(n) [G]§ 60.49Da(s) [G]§ 60.49Da(w) § 60.50Da(a) [G]§ 60.50Da(d) [G]§ 60.50Da(e) § 60.50Da(f)	[G]§ 60.49Da(s) [G]§ 60.49Da(w)	[G]§ 60.49Da(s) [G]§ 60.49Da(w) § 60.51Da(a) § 60.51Da(b) § 60.51Da(b)(1) § 60.51Da(b)(2) § 60.51Da(b)(4) § 60.51Da(b)(5) § 60.51Da(b)(6) § 60.51Da(b)(7) § 60.51Da(b)(8) § 60.51Da(b)(9) [G]§ 60.51Da(c) § 60.51Da(f) [G]§ 60.51Da(h) § 60.51Da(j) § 60.51Da(k)

## Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPDB	EU	60Da-NG	SO <sub>2</sub>	40 CFR Part 60, Subpart Da	§ 60.43Da(b)(2) § 60.43Da(g) § 60.48Da(c)	No owner or operator shall discharge any gases that contain sulfur dioxide in excess of 100 percent of the potential combustion concentration (zero percent reduction) when emissions are less than 86 ng/J (0.20 lb/MMBtu) heat input.	§ 60.48Da(e) § 60.48Da(f) § 60.48Da(g)(1) § 60.48Da(g)(2) § 60.48Da(h) § 60.49Da(j)(1) § 60.49Da(j)(3) § 60.49Da(j)(4) § 60.50Da(a) [G]§ 60.50Da(c) [G]§ 60.50Da(e) § 60.50Da(f) * See Alternative Requirements	None	§ 60.51Da(a) § 60.51Da(b) § 60.51Da(b)(1) § 60.51Da(b)(2) § 60.51Da(b)(3) § 60.51Da(b)(4) § 60.51Da(b)(5) § 60.51Da(b)(6) § 60.51Da(b)(7) § 60.51Da(b)(8) § 60.51Da(b)(9) [G]§ 60.51Da(c) [G]§ 60.51Da(d) [G]§ 60.51Da(e) § 60.51Da(f) [G]§ 60.51Da(h) § 60.51Da(j) § 60.51Da(k)
GRPSTACK	EP	R111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
EMENG	EU	63ZZZZ-ENG	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6603(a)-Table2d.4 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(b) [G]§ 63.6640(f)(1)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at an area source, you must comply with the requirements as specified in Table 2d.4.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii § 63.6640(b)	§ 63.6625(i) § 63.6655(a) § 63.6655(a)(1) § 63.6655(a)(2) § 63.6655(a)(4) § 63.6655(a)(5) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(b) § 63.6640(e) § 63.6650(f)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPTURBINE	EU	6oGG	SO <sub>2</sub>	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) [G]§ 60.334(h)(3)	None	None
GRPTURBINE	EU	6oGG	NO <sub>x</sub>	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	[G]§ 60.334(b) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(iii) [G]§ 60.335(a) § 60.335(b)(2) § 60.335(b)(3)	[G]§ 60.334(b)	§ 60.334(j) § 60.334(j)(5)

**Additional Monitoring Requirements**

**Periodic Monitoring Summary..... 36**

## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: GRPSTACK	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: Once per week	
Averaging Period: n/a	
Deviation Limit: Observation of visible emissions unless a Method 9 observation is conducted within in 24 hours of observing visible emissions and opacity is less than 15%.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions.</p> <p>If the result of the Test Method 9 is an opacity above the corresponding opacity limit, the permit holder shall report a deviation.</p>	

**Permit Shield**

**Permit Shield .....38**

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
GRPBOILER	AB1, AB2	30 TAC Chapter 112, Sulfur Compounds	Not a liquid or solid fuel-fired generator, furnace or heater
GRPBOILER	AB1, AB2	30 TAC Chapter 117, Commercial	Not located in HGA, BPA, or DFW areas.
GRPBOILER	AB1, AB2	40 CFR Part 63, Subpart DDDDD	Not located at a major HAP source.
GRPDB	CU1, CU2	30 TAC Chapter 117, East Texas Combustion	Placed into service before December 31, 1995
GRPDB	CU1, CU2	40 CFR Part 63, Subpart DDDDD	Not located at a major HAP source.
GRPSTACK	AB1, AB2, CU1, CU2	30 TAC Chapter 115, HRVOC Vent Gas	Not located in Houston, Galveston or Brazoria Areas
GRPSTACK	AB1, AB2, CU1, CU2	30 TAC Chapter 115, Vent Gas Controls	Vent gas stream originates from a combustion unit exhaust stream which is not used as a control device.
CT	N/A	30 TAC Chapter 115, HRVOC Cooling Towers	Not located in Houston, Galveston or Brazoria Areas
CT	N/A	40 CFR Part 63, Subpart Q	Chromium-based water treatment chemicals are not used.
ENG	N/A	30 TAC Chapter 117, Commercial	Not located in HGA, BPA, or DFW areas
ENG	N/A	40 CFR Part 60, Subpart IIII	Not constructed, reconstructed or modified after July 11, 2005.

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
ENGSTK	N/A	30 TAC Chapter 115, HRVOC Vent Gas	Not located in Houston, Galveston, or Brazoria areas.
ENGSTK	N/A	30 TAC Chapter 115, Vent Gas Controls	Vent gas stream originates from a combustion unit exhaust stream which is not used as a control device.
FUG	N/A	30 TAC Chapter 115, Fugitives Pet Ref B Counties	Neither located in HGA, BPA, or DFW nor a petroleum refinery
FUG	N/A	30 TAC Chapter 115, HRVOC Fugitive Emissions	Not located in Houston, Galveston, or Brazoria areas.
EMENG	N/A	30 TAC Chapter 112, Sulfur Compounds	Not a liquid or solid fuel-fired steam generator, furnace, or heater
EMENG	N/A	30 TAC Chapter 117, Commercial	Not located in an applicable ozone non-attainment county
EMENG	N/A	40 CFR Part 60, Subpart IIII	Not constructed, modified or reconstructed after July 11, 2005
GRPTURBINE	CU1, CU2	30 TAC Chapter 112, Sulfur Compounds	Not a liquid or solid fuel-fired generator, furnace or heater
GRPTURBINE	CU1, CU2	30 TAC Chapter 117, East Texas Combustion	Placed into service before December 31, 1995
GRPTURBINE	CU1, CU2	40 CFR Part 60, Subpart KKKK	Not constructed, reconstructed or modified after February 18, 2005.

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
GRPTURBINE	CU1, CU2	40 CFR Part 63, Subpart YYYY	Not located at a major HAP source.

**New Source Review Authorization References**

**New Source Review Authorization References ..... 42**

**New Source Review Authorization References by Emission Unit..... 43**

## New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

<b>Prevention of Significant Deterioration (PSD) Permits</b>	
PSD Permit No.: PSDTX943	Issuance Date: 04/09/2010
<b>Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.</b>	
Authorization No.: 41500	Issuance Date: 04/09/2010
<b>Permits By Rule (30 TAC Chapter 106) for the Application Area</b>	
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.478	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.532	Version No./Date: 09/04/2000

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
AB1	AUXILIARY BOILER 1	41500, PSDTX943
AB2	AUXILIARY BOILER 2	41500, PSDTX943
AB2	AUXILIARY BOILER 2	41500, PSDTX943
CT	COOLING TOWER	41500, PSDTX943
CU1	TURBINE/HEAT RECOVERY STEAM GENERATOR 1	41500, PSDTX943
CU2	TURBINE/HEAT RECOVERY STEAM GENERATOR 2	41500, PSDTX943
ENGSTK	ENGINE STACK	106.511/09/04/2000
FUG	PIPING FUGITIVES	41500, PSDTX943
EMENG	EMERGENCY ENGINE	106.511/09/04/2000
ENG	STATIONARY RICE 1	106.511/09/04/2000

**Alternative Requirement**

**Alternative Requirement ..... 45**



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

September 05, 2003

Patrick Blanchard  
Regional Manager, SH&E  
ERCOT Power Region  
Calpine Central, L.P.  
4100 Underwood  
Pasadena, TX 77507

Re: Request for Approval -  
Periodic Monitoring System,  
New Source Performance Standards (NSPS)  
40 CFR Part 60, Subpart Da

Dear Mr. Blanchard:

This letter is in response to your request for approval of a waiver of an SO<sub>2</sub> CEMS, dated September 23, 2002. You indicated that the approval request is for duct burners located at the Corpus Christi Energy Center in Corpus Christi, Texas facility, owned and operated by Calpine Central, LP ("Calpine").

Your request letter indicated that you have duct burners to which NSPS Subpart Da applies. 40 CFR 60.47a(b) requires these units to be equipped with a CEMS for SO<sub>2</sub>, since these units burn refinery gas in addition to natural gas. You stated that these units are also subject to 40 CFR part 75 to measure and report emissions of SO<sub>2</sub>. You also stated that the refinery fuel gas that is received from the adjacent refinery and burned in these units is subject to a permit condition which requires the total sulfur content of the blended natural gas and refinery gas to not exceed 0.1/dscf on a three hour average.

In a subsequent telephone conversation with Anupa Ahuja, you were informed that EPA Region 6 would not be able to waive the 40 CFR 60.47a(b) SO<sub>2</sub> CEMS requirement as requested in your letter, but would be able to approve an alternative periodic monitoring system which would monitor fuel sulfur content in lieu of SO<sub>2</sub> emissions. You stated that Calpine requests this alternative periodic monitoring system.

Based upon the information you submitted on your permit conditions and fuel burned, EPA Region 6 makes the following determinations regarding the duct burners at your Corpus Christi facility.

Pursuant to 40 CFR 60.13(i), EPA approves the following alternative periodic monitoring system in lieu of SO<sub>2</sub> CEMS for the duct burners at the Corpus Christi Energy Center.

## Sulfur Monitoring

a. Analysis for fuel sulfur content of the gas as fired (natural gas, refinery gas, or blended refinery and natural gas) in the duct burners shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are: ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and ASTM D4084-82 as referenced in 40 CFR 60.335(d).

b. Effective the date of this alternative periodic monitoring, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.47a, then sulfur monitoring shall be conducted once per quarter for six quarters.

c. If, after the monitoring required in 2(b) above, or herein, the sulfur content of the fuel shows little variability, and calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.47a, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.

d. Should any sulfur analysis as required in items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.47a, the owner or operator shall notify TCEQ of such excess emissions and the custom schedule shall be re-examined by the EPA. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

3. If there is a change in fuel supply, the owner or operator must notify TCEQ of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

4. Records of sample analysis and fuel supply pertinent to this alternative periodic monitoring shall be retained for a period of three years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

This approval of an alternative periodic monitoring is based on the information submitted to EPA Region 6 on September 23, 2002. If any information is found that would reverse this determination, then it would become invalid and a new determination would be needed.

If you have any questions concerning this determination, please contact Ms. Anupa Ahuja of my staff at (214) 665-2701.

Sincerely yours,



William K. Honker, P.E.  
Chief, Air/Toxics and Inspection  
Coordination Branch

CC: Jeff Greif (TCEQ)

**Appendix A**

**Acronym List .....48**

## Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM .....	actual cubic feet per minute
AMOC.....	alternate means of control
ARP .....	Acid Rain Program
ASTM .....	American Society of Testing and Materials
B/PA.....	Beaumont/Port Arthur (nonattainment area)
CAM .....	Compliance Assurance Monitoring
CD .....	control device
COMS.....	continuous opacity monitoring system
CVS.....	closed-vent system
D/FW .....	Dallas/Fort Worth (nonattainment area)
DR .....	Designated Representative
ELP .....	El Paso (nonattainment area)
EP .....	emission point
EPA .....	U.S. Environmental Protection Agency
EU .....	emission unit
FCAA Amendments .....	Federal Clean Air Act Amendments
FOP .....	federal operating permit
GF.....	grandfathered
gr/100 scf.....	grains per 100 standard cubic feet
HAP.....	hazardous air pollutant
H/G/B.....	Houston/Galveston/Brazoria (nonattainment area)
H <sub>2</sub> S .....	hydrogen sulfide
ID No.....	identification number
lb/hr .....	pound(s) per hour
MMBtu/hr.....	Million British thermal units per hour
MRRT.....	monitoring, recordkeeping, reporting, and testing
NA .....	nonattainment
N/A.....	not applicable
NADB .....	National Allowance Data Base
NO <sub>x</sub> .....	nitrogen oxides
NSPS .....	New Source Performance Standard (40 CFR Part 60)
NSR.....	New Source Review
ORIS.....	Office of Regulatory Information Systems
Pb .....	lead
PBR .....	Permit By Rule
PM.....	particulate matter
ppmv .....	parts per million by volume
PSD .....	prevention of significant deterioration
RO .....	Responsible Official
SO <sub>2</sub> .....	sulfur dioxide
TCEQ.....	Texas Commission on Environmental Quality
TSP .....	total suspended particulate
TVP.....	true vapor pressure
U.S.C. ....	United States Code
VOC.....	volatile organic compound

**Appendix B**

**Major NSR Summary Table.....50**

**Texas Commission on Environmental Quality**

**Major NSR Summary Table**

Permit Number: 41500 and PSDTX943			Issuance Date: 04/09/2010				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
CU1	Turbine/HRSG No. 1 GE 7241 FA Turbine with 700 MMBtu/hr Duct Burner	NO <sub>x</sub>	164.75	--	2, 3, 6, 7, 12, 13, 15, 16	2, 3, 4, 5, 7, 12, 13, 15, 16, 17, 18, 19	2, 12, 13, 14, 20, 21
		CO	116.90	--			
		PM/PM <sub>10</sub>	35.90	--			
		VOC	19.72	--			
		SO <sub>2</sub>	48.35	--			
		H <sub>2</sub> SO <sub>4</sub>	7.40	--			
CU2	Turbine/HRSG No. 2 GE 7241 FA Turbine with 700 MMBtu/hr Duct Burner	NO <sub>x</sub>	164.75	--	2, 3, 6, 7, 12, 13, 15, 16	2, 3, 4, 5, 7, 12, 13, 15, 16, 17, 18, 19	2, 12, 13, 14, 20, 21
		CO	116.90	--			
		PM/PM <sub>10</sub>	35.90	--			
		VOC	19.72	--			
		SO <sub>2</sub>	48.35	--			
		H <sub>2</sub> SO <sub>4</sub>	7.40	--			
FUG	Piping Fugitives	VOC	2.02	2.38			
		H <sub>2</sub> S	0.002	0.004			
AB1	Auxiliary Boiler 1 315 MMBtu/hr (4)	NO <sub>x</sub>	18.84	--	2, 7, 9, 12, 13, 15, 16	2, 5, 7, 9, 12, 13, 15, 16, 17, 18, 19	2, 12, 13, 14, 20, 21
		CO	28.11	--			
		PM/PM <sub>10</sub>	1.57	--			
		VOC	2.81	--			

**Texas Commission on Environmental Quality**

**Major NSR Summary Table**

Permit Number: 41500 and PSDTX943			Issuance Date: 04/09/2010				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
		SO <sub>2</sub>	9.40	--			
AB2	Auxiliary Boiler 2 315 MMBtu/hr (5)	NO <sub>x</sub>	18.84	--	2, 7, 9, 12, 13, 15, 16	2, 5, 7, 9, 12, 13, 15, 16, 17, 18, 19	2, 12, 13, 14, 20, 21
		CO	28.11	--			
		PM/PM <sub>10</sub>	1.57	--			
		VOC	2.81	--			
		SO <sub>2</sub>	9.40	--			
CU1 and CU2 AB1 and AB2	Annual Total for Two Turbines****/Du ct Burners***and Two Auxiliary Boilers (Includes MSS emissions)	NO <sub>x</sub>	--	820.10	2, 3, 6, 7, 9, 12, 13, 15, 16	2, 3, 4, 5, 7, 9, 12, 13, 15, 16, 17, 18, 19	2, 12, 13, 14, 20, 21
		CO	--	685.40			
		PM/PM <sub>10</sub>	--	226.90			
		VOC	--	74.70			
		SO <sub>2</sub>	--	126.20			
		H <sub>2</sub> SO <sub>4</sub>	--	19.30			
CT	Cooling Towers	PM/PM <sub>10</sub>	11.15	48.85			
CU1	Turbine/HRSG No. 1 (MSS)	NO <sub>x</sub>	335.41	--	13	13, 19, 22	13
		CO	1020.96	--			
		PM/PM <sub>10</sub>	35.90	--			
		VOC	183.49	--			
		SO <sub>2</sub>	48.35	--			
		H <sub>2</sub> SO <sub>4</sub>	7.40	--			

**Texas Commission on Environmental Quality**

**Major NSR Summary Table**

Permit Number: 41500 and PSDTX943			Issuance Date: 04/09/2010				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
CU2	Turbine/HRSG No. 2 (MSS)	NO <sub>x</sub>	335.41	--	13	13, 19, 22	13
		CO	1020.96	--			
		PM/PM <sub>10</sub>	35.90	--			
		VOC	183.49	--			
		SO <sub>2</sub>	48.35	--			
		H <sub>2</sub> SO <sub>4</sub>	7.40	--			
AB1	Auxiliary Boiler 1 (MSS)	NO <sub>x</sub>	31.50	--	13	13, 19, 22	13
		CO	116.41	--			
AB2	Auxiliary Boiler 2 (MSS)	NO <sub>x</sub>	31.50	--	13	13, 19, 22	13
		CO	116.41	--			

Footnotes:

- (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.
- (3) VOC – volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
 NO<sub>x</sub> – total oxides of nitrogen  
 SO<sub>2</sub> – sulfur dioxide  
 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.  
 CO – carbon monoxide  
 H<sub>2</sub>SO<sub>4</sub> – sulfuric acid

## Texas Commission on Environmental Quality

### Major NSR Summary Table

H<sub>2</sub>S – hydrogen sulfide

(4) The maximum heat input capacity above 315 Million British thermal units per hour (MMBTU/hr) (up to 336.4 MMBTu/hr) is currently authorized under 30 TAC § 106.261 and Permit by Rule Registration Number 47963 effective July 20, 2001.

(5) The maximum heat input capacity above 315 MMBtu/hr (up to 336.4 MMBtu/hr) is currently authorized under 30 TAC § 106.261 and Permit by Rule Registration Number 47950 effective July 5, 2001.

\*\*Compliance with annual emission limits is based on a rolling 12-month period.

\*\*\*The combined annual heat input for the two duct burners based on any consecutive 12-month period shall not exceed 6,745,200 MMBtu/yr (higher heating value).

\*\*\*\*Steam augmentation for 1,000 hours per year per turbine.

## SPECIAL CONDITIONS

Permit Numbers 41500 and PSDTX943

### SCOPE AND FEDERAL APPLICABILITY

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. Compliance with the annual emission limits and operating schedules is based on a rolling 12-month period (i.e., updated monthly) rather than the calendar year. **(PSD)**
2. The facilities operated under this permit 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 on Standards of Performance for New Stationary Sources, Subpart A, General Conditions, and the following:
  - A. Subpart Da, Electric Utility Steam Generating Units; applicable to the Heat Recovery Steam Generating (HRSG) Duct Burners;
  - B. Subpart Db, Standards of Performance for Industrial-Commercial Institutional Steam Generating Units; applicable to the Auxiliary Boilers; and
  - C. Subpart GG, Stationary Gas Turbines; applicable to the Gas Turbines.

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.

### EMISSION STANDARDS, PLANT DESIGN, OPERATION PRACTICES, AND FUEL SPECIFICATIONS

3. The two HRSG duct burners are each limited to a maximum heat input capacity of 700 million British thermal units per hour (MMBtu/hr) based on the higher heating value (HHV) of the fuels. The combined annual heat input for the two duct burners based on any consecutive 12-month period shall not exceed 6,745,200 million British thermal units per year (HHV). The permit holder shall monitor and record HRSG unit duct burners' fuel firing rates by fuel type fired to calculate emissions of contaminants not measured by a continuous emission monitoring system (CEMS) in order to demonstrate that the maximum allowable emissions will not be exceeded. **(PSD)**
4. The gas turbines shall be limited to firing pipeline-quality, sweet natural gas containing no more than 5.0 (hourly) and 2.0 (on an annual basis) grains (gr) total sulfur per 100 dry standard cubic feet (dscf).

## SPECIAL CONDITIONS

Permit Numbers 41500 and PSDTX943

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5. The HRSG duct burners and the auxiliary boilers shall be limited to firing the following fuels:
  - A. Natural gas as described in the Special Condition No. 4.
  - B. Refinery gas from CITGO at 0.1 gr/dscf of sulfur based on a three-hour rolling average.
  - C. Mixtures of the above fuels.
  - D. Firing of any other fuel will require authorization from the permitting authority.
6. Upon request by the Executive Director of the Texas Commission on Environmental Quality (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 gas turbines and HRSG duct burners.
7. The opacity of particulate matter (PM) emissions shall not exceed five (5) percent at Emission Point Nos. (EPNs) CU 1, CU 2, AB 1 and AB 2 except during periods of startup or shutdown, which shall not exceed 20 percent. This determination shall be made first by observing for visible emissions while each facility is in operation. Observations shall be made at least 15 feet and no more than 0.25 miles from each emission point. If no visible emissions are observed from an emission point, then opacity measurements are not required. If visible emissions are observed from the emission point, then opacity shall be determined by 40 CFR Part 60, Appendix A, Test Method 9. Contributions from uncombined water shall not be included in determining compliance with this condition. Observations shall be performed and recorded quarterly.
8. Each cogeneration train's normal operating range is from 50 to 100 percent base load except for periods of maintenance, startup, and shutdown (MSS). Steam augmentation for 1,000 hours per year per turbine and reduced load operation below base load not associated with MSS is authorized provided the maximum emission rates specified in the MAERT are not exceeded. **(PSD)**
9. The auxiliary boilers shall each be limited to a maximum heat input capacity of 336.4 MMBtu/hr, HHV. The heat input shall be calculated on the HHV of the fuel. The permit holder may fire any combination of auxiliary boilers provided emissions from the gas turbines/HRSG duct burners and auxiliary boilers being fired does not exceed the maximum emission rates specified in the MAERT. If the auxiliary boilers will be fired or maintained on a hot standby basis, emissions from the auxiliary boilers must be measured continuously to determine compliance with the annual ton per year limitations in the MAERT. Emission

## SPECIAL CONDITIONS

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concentrations from the boilers shall be corrected to 3 percent oxygen (O<sub>2</sub>). The increased maximum heat input capacity above 315 MMBtu/hr for each boiler is currently authorized under Title 30 Texas Administrative Code § 106.261 and Permit by Rule Registration Numbers 47963 and 47950 effective July 20, 2001 and July 5, 2001, for Auxiliary Boiler 1 and Auxiliary Boiler 2, respectively. **(PSD)**

## ADDITIONAL CONTROLS

10. The holder of this permit shall leave appropriate clearances in and around each HRSG to allow for the future installation of additional controls in the event that additional control technology is required by the Executive Director of the TCEQ as a result of future modifications to the permit.

## INITIAL DETERMINATION OF COMPLIANCE

11. 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.
12. 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 CU 1, CU 2, AB 1 and AB 2. The initial determination of compliance stack sampling for all both identical auxiliary boilers may be demonstrated by testing one of the auxiliary boilers and submitting the stack sampling results as data in lieu of stack sampling for the other identical boiler not tested. The stack sampling for EPNs CU 1 and CU 2 shall be performed without steam injection for power augmentation. One of the auxiliary boilers and one of the HRSG duct burners shall be tested while firing refinery gas. 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, with final method approval to be determined at the pretest meeting. Testing was conducted in July through October 2002 for the combustion turbines, and in February and March 2003 for the auxiliary boilers and for refinery gas firing in the combustion turbines. **(PSD)**

Fuel sampling using the methods and procedures of 40 CFR § 60.335(d) may be conducted in lieu of stack sampling for sulfur dioxide (SO<sub>2</sub>). If fuel sampling is used, compliance with New Source Performance Standards (NSPS), Subpart GG, sulfur dioxide (SO<sub>2</sub>) limits shall be based on 100 percent conversion of the sulfur in the fuel to SO<sub>2</sub>. Fuel sampling may be used to

## SPECIAL CONDITIONS

Permit Numbers 41500 and PSDTX943

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demonstrate compliance with the SO<sub>2</sub> maximum allowable emission rates from the auxiliary boilers and duct burners. 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 Corpus Christi Regional Office shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- (6) Procedure used to determine turbine loads during and after the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports. A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Air Permits Division. Test waivers and alternate/equivalent procedure proposals for NSPS testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

- B. Emissions to be tested for at full turbine load include (but are not limited to) nitrogen oxide (NO<sub>x</sub>), O<sub>2</sub>, carbon monoxide (CO), and volatile organic compounds (VOC). The testing will be used to demonstrate initial compliance with Special Condition No. 12E and the MAERT.
- C. Emissions of VOC and O<sub>2</sub> from each turbine shall be tested while firing at the minimum point in the operating range, which is 50 percent of base load.

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- D. Emissions of NO<sub>x</sub>, O<sub>2</sub>, CO, VOC, particulate matter equal to or less than 10 microns in diameter (PM<sub>10</sub>) and opacity shall be tested with the turbine and duct burners operating concurrently at full rated capacity. Emissions of NO<sub>x</sub>, O<sub>2</sub>, CO, VOC, PM<sub>10</sub>, and opacity from the auxiliary boilers shall be tested while firing at full rated capacity.
- E. The holder of this permit shall demonstrate during the initial compliance testing that the best available control technology has been selected by demonstrating that the concentrations of NO<sub>x</sub> and CO from the gas turbine, the HRSG duct burner, and auxiliary boilers while firing natural gas do not exceed the following limits:
- (1) Turbine Emission Limits expressed as parts per million by volume dry basis (ppmvd) when corrected to 15 percent O<sub>2</sub>, without correction to International Standards Organization conditions. The NO<sub>x</sub> shall not exceed 9 ppmvd and CO shall not exceed 13.0 ppmvd.
  - (2) HRSG Duct Burner Emission Limits expressed in lb/MMBtu. Emissions of NO<sub>x</sub> shall not exceed 0.08 pounds per million British thermal units (lb/MMBtu). The CO emissions shall not exceed 0.08 lb/MMBtu.
  - (3) Each Auxiliary Boiler's emissions of NO<sub>x</sub> shall not exceed 0.06 lb/MMBtu. The CO emissions shall not exceed 100 ppmvd when corrected to 3 percent O<sub>2</sub>.
- F. Sampling of each gas turbine and duct burner shall occur within 60 days after achieving the maximum production rate at which each gas turbine and duct burner will be operated but no later than 180 days after initial start-up of each unit. Additional sampling shall occur as may be required by the TCEQ or the EPA.
- G. Within 60 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 Corpus Christi Regional Office.
  - One copy to the TCEQ Austin Office of Permitting and Registration, Air Permits Division.
  - One copy to the EPA Region 6 Office, Dallas.

## CONTINUOUS DETERMINATION OF COMPLIANCE FOR CO and NO<sub>x</sub>

13. The holder of this permit shall install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of NO<sub>x</sub>, CO, and O<sub>2</sub> from each Turbine/HRSG Stack (EPNs CU 1

## SPECIAL CONDITIONS

Permit Numbers 41500 and PSDTX943

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and 2) and from each of the auxiliary boilers. The initial certification and relative accuracy test audit (RATA) shall be conducted prior to or during the sampling required by Special Condition No. 12. **(PSD)**

- 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 Permitting and Registration, Air Permits Division in Austin for requirements to be met. The CEMS shall comply with the following requirements:

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, § 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director. Compliance with the reporting requirements of 40 CFR Part 60, Subpart A and Special Condition No. 20 will satisfy the reporting requirements of this condition.

All cylinder gas audit exceedances of  $\pm 15$  percent accuracy or 5 parts per million, whichever is greater, shall be reported as necessary to the appropriate TCEQ Regional Director. Additionally, any CEMS downtime shall be reported to the appropriate TCEQ Regional Director as required by 40 CFR Part 60, Subpart A, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

- B. The monitoring data shall be reduced to hourly average values at least once everyday, using a minimum of four equally-spaced data points from each one-hour period. Two valid data points shall be generated during the hourly period in which zero and span is performed. Monitored  $\text{NO}_x$  and CO concentrations shall be corrected and reported in dimensional units corresponding to the MAERT limitations.
- C. All monitoring data and quality-assurance data shall be maintained by the source for a period of two years and shall be made available to the TCEQ Executive Director or his designated representative upon request. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit. Hourly average concentrations shall be summed to tons per year and used to determine compliance with the annual emission limits in the MAERT.

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- D. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.
  - E. The daily calibration, maintenance, and CEMS operating requirements of this permit shall only apply to the auxiliary boilers on the days that the auxiliary boilers are fired or are on hot stand-by.
  - F. If applicable, the 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. 40 CFR Part 75 is deemed an acceptable alternative to the performance specifications and quality assurance requirements of 40 CFR Part 60.
14. If the average NO<sub>x</sub> or CO stack outlet emission rate exceeds the maximum allowable emissions rate for more than one hour, 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<sub>x</sub> or CO 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 or with a written report detailing the cause of the increase in emissions and all efforts being made to correct the problem. **(PSD)**
15. The holder of this permit shall install, calibrate, maintain, and operate continuous monitoring systems to monitor and record the average hourly natural gas and refinery gas consumed by the gas turbine, duct burners, and auxiliary boilers. The systems shall be accurate to ±5.0 percent of the units' maximum flow. **(PSD)**
16. The holder of this permit shall monitor the fuels fired in the turbines for fuel-bound sulfur as specified in 40 CFR Part 60.334(h) or by maintaining contracts from fuel suppliers which guarantee that the sulfur content of the fuel meets the requirements of Special Condition 4, as specified in 40 CFR Part 60, Subpart GG.

The holder of this permit shall be set-up to receive real-time sulfur content concentration data from the on-site refinery gas monitor to assist in demonstrating continuous compliance with the SO<sub>2</sub> limits of this permit. The monitor will comply with all applicable requirements of 40 CFR 75, Appendix D. In the event the sulfur concentration of the CITGO refinery gas exceeds the limitation specified in Special Condition No. 5B, the permit holder shall make the necessary adjustments in the fuel flow to the duct burners or auxiliary boilers to achieve compliance with the limitation specified in Special Condition No. 5B. The permit holder shall maintain records of the fuel flow adjustments that were made. **(PSD)**

## SPECIAL CONDITIONS

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17. The holder of this permit shall either measure or develop a program to calculate the total mass flow rate through the HRSG stack using the measured or calculated flow rate as provided for by EPA Reference Method 19 to ensure continuous compliance with the emission limitations specified in the MAERT. The permit holder shall calculate hourly mass emissions in pounds per hour (lb/hr) using the measured or calculated exhaust flow rate and the measured concentrations of NO<sub>x</sub> and CO from the CEMS required in Special Condition No. 13. These data shall be stored on a computer hard drive and on a computer disk or other TCEQ-accepted computer media. Records of this information shall also be available in a form suitable for inspection. **(PSD)**

## 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, the EPA, or any air pollution control agency with jurisdiction.
  - A. A copy of this permit.
  - B. Permit application dated May 27, 1999, MSS application dated August 8, 2009 and subsequent representations submitted to the TCEQ.
  - C. A complete copy of the testing reports and records of the initial performance testing completed pursuant to Special Condition No. 12 to demonstrate initial compliance.
  - D. Stack sampling results or other testing (other than CEMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.
19. The following information shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be used to demonstrate compliance with the MAERT. These records shall be made immediately available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction: **(PSD)**
  - A. Raw data files of all CEMS data including calibration checks and adjustments and maintenance performed on these systems.
  - B. Records of the turbines, auxiliary boilers, and HRSG unit duct burners' hours of operation, average daily quantity of gas fired by fuel type, and calculated emissions of

## SPECIAL CONDITIONS

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contaminants not measured by a CEMS. Emission factors corresponding to fuel type fired shall be taken from the permit application dated May 27, 1999, and subsequent representations. Other fuel-specific emission factors may be used to calculate emissions if the emissions factors are based upon stack sampling results of the units authorized by this permit.

- C. Records of fuel sampling conducted pursuant to Special Condition No. 16. Additionally, the permit holder shall maintain records of fuel flow adjustments, sulfur concentrations, and calculation to demonstrate that the SO<sub>2</sub> maximum lb/hr allowable emission rate has not been exceeded when firing refinery gas that has a concentration that exceeds 0.1 gr/dscf of sulfur.
- D. Records of MSS events which include the following information:
  - (1) The physical location at which emissions from the MSS activity occurred, including the emission point number and common name for the point at which the emissions were released into the atmosphere.
  - (2) The type of planned MSS activity and the reason for the planned activity.
  - (3) The common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred.
  - (4) The start date and time of the MSS activity and its duration.
  - (5) The amount of emissions for the event.

## REPORTING

- 20. The holder of this permit shall submit to the TCEQ Corpus Christi Regional Office and the Air Enforcement Branch of EPA in Dallas 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 the equipment authorized by this permit and a report summary of the periods of noncomplying emissions and CEMS downtimes by cause. **(PSD)**
- 21. For the purposes of reporting pursuant to Special Condition No. 20, noncomplying emissions from equipment authorized by this permit shall be defined as follows: **(PSD)**

## SPECIAL CONDITIONS

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- A. Noncomplying emissions of NO<sub>x</sub> or CO shall be defined as each one-hour period of operation, during which the average emissions as measured and recorded by the CEMS exceeds NO<sub>x</sub> or CO lbs/hr emission limitations specified in the MAERT.
- B. Noncomplying emissions of SO<sub>2</sub> shall be defined as emissions resulting from firing of any other fuel not authorized by the permitting authority or the firing of an authorized fuel, either of which causes an exceedance of the SO<sub>2</sub> limitation specified in the MAERT based on 100 percent conversion of the sulfur in the fuel to SO<sub>2</sub>.
- C. Noncomplying emissions of PM<sub>10</sub> and VOC shall be defined as emissions resulting from firing of any unauthorized fuel or the emissions resulting from the firing of an authorized fuel which exceeds the emission limitation specified in the MAERT.
- D. Noncomplying annual emissions shall be defined as any rolling 12-month period of operation during which the 12-month cumulative emissions exceed the annual limits specified in the MAERT of this permit.

## ROUTINE MAINTENANCE, STARTUP, AND SHUTDOWN

- 22. The emissions from routine MSS activities are reflected in the MAERT. These emissions will be minimized by the following:
  - A. Facility and air pollution control equipment will be operated in a manner consistent with good practices for minimizing emissions.
  - B. The frequency and duration of operation in MSS mode will be minimized and the applicable emissions monitoring systems will be kept in operation.
  - C. MSS activities are authorized provided that the NO<sub>x</sub>, CO and VOC emission rates in lb/hr do not exceed those specified for MSS conditions in the MAERT and comply with the tons per year specified in the MAERT.
  - D. For EPNs CU 1 and 2, the following shall apply:
    - (1) Cold startup events shall not exceed five hours. A cold startup is defined as a startup after a unit has received no fuel for a period of 24 hours or more.
    - (2) Warm startup events shall not exceed three hours. A warm startup is defined as a startup which is not a cold startup.

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- (3) Shutdown events shall not exceed two hours.
- E. For EPNs AB 1 and 2, shutdown, cold and warm startup events shall not exceed two hours in duration.

Date April 9, 2010

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 41500 and PSDTX943

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**
<b><u>TURBINE AND DUCT BURNER</u></b>				
CU1	Turbine/HRSG No. 1 GE 7241 FA Turbine with 700 MMBtu/hr Duct Burner	NO <sub>x</sub>	164.75	--
		CO	116.90	--
		PM/PM <sub>10</sub>	35.90	--
		VOC	19.72	--
		SO <sub>2</sub>	48.35	--
		H <sub>2</sub> SO <sub>4</sub>	7.40	--
CU2	Turbine/HRSG No. 2 GE 7241 FA Turbine with 700 MMBtu/hr Duct Burner	NO <sub>x</sub>	164.75	--
		CO	116.90	--
		PM/PM <sub>10</sub>	35.90	--
		VOC	19.72	--
		SO <sub>2</sub>	48.35	--
		H <sub>2</sub> SO <sub>4</sub>	7.40	--
<b><u>FUGITIVES</u></b>				
FUG	Piping Fugitives	VOC	2.02	2.38
		H <sub>2</sub> S	0.002	0.004
<b><u>AUXILIARY BOILERS</u></b>				
AB 1	Auxiliary Boiler 1 315 MMBtu/hr (4)	NO <sub>x</sub>	18.84	--
		CO	28.11	--
		PM/PM <sub>10</sub>	1.57	--
		VOC	2.81	--
		SO <sub>2</sub>	9.40	--

## 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**
AB 2	Auxiliary Boiler 2 315 MMBtu/hr (5)	NO <sub>x</sub>	18.84	--
		CO	28.11	--
		PM/PM <sub>10</sub>	1.57	--
		VOC	2.81	--
		SO <sub>2</sub>	9.40	--

**TURBINES, DUCT BURNERS, AND AUXILIARY BOILERS (TONS PER YEAR)**

CU 1 and 2	Annual Total for Two	NO <sub>x</sub>	--	820.10
AB 1 and 2	Turbines****/Duct Burners ***and Two Auxiliary Boilers (Includes MSS emissions)	CO	--	685.40
		PM/PM <sub>10</sub>	--	226.90
		VOC	--	74.70
		SO <sub>2</sub>	--	126.20
		H <sub>2</sub> SO <sub>4</sub>	--	19.30

**COOLING TOWERS**

CT	Cooling Towers	PM/PM <sub>10</sub>	11.15	48.85
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**MAINTENANCE, STARTUP, AND SHUTDOWN**

CU1	Turbine/HRSG No. 1	NO <sub>x</sub>	335.41	--
		CO	1020.96	--
		PM/PM <sub>10</sub>	35.90	--
		VOC	183.49	--
		SO <sub>2</sub>	48.35	--
		H <sub>2</sub> SO <sub>4</sub>	7.40	--
CU2	Turbine/HRSG No. 2	NO <sub>x</sub>	335.41	--
		CO	1020.96	--
		PM/PM <sub>10</sub>	35.90	--
		VOC	183.49	--
		SO <sub>2</sub>	48.35	--
		H <sub>2</sub> SO <sub>4</sub>	7.40	--

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**
AB1	Auxiliary Boiler 1	NO <sub>x</sub>	31.50	--
		CO	116.41	--
AB2	Auxiliary Boiler 2	NO <sub>x</sub>	31.50	--
		CO	116.41	--

(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.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

NO<sub>x</sub> - total oxides of nitrogen

SO<sub>2</sub> - sulfur dioxide

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

CO - carbon monoxide

H<sub>2</sub>SO<sub>4</sub> - sulfuric acid

H<sub>2</sub>S - hydrogen sulfide

(4) The maximum heat input capacity above 315 Million British thermal units per hour (MMBtu/hr) (up to 336.4 MMBtu/hr) is currently authorized under 30 TAC § 106.261 and Permit by Rule Registration Number 47963 effective July 20, 2001.

(5) The maximum heat input capacity above 315 MMBtu/hr (up to 336.4 MMBtu/hr) is currently authorized under 30 TAC § 106.261 and Permit by Rule Registration Number 47950 July 5, 2001.

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

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

\*\* Compliance with annual emission limits is based on a rolling 12-month period.

\*\*\* The combined annual heat input for the two duct burners based on any consecutive 12-month period shall not exceed 6,745,200 MMBtu/yr (higher heating value).

\*\*\*\* Steam augmentation for 1,000 hours per year per turbine.

Date April 9, 2010