

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

City of Austin

AUTHORIZING THE OPERATION OF

Sand Hill Energy Center
Electric Services

LOCATED AT

Travis County, Texas

Latitude 30° 12' 30" Longitude 97° 36' 50"

Regulated Entity Number: RN100215052

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: O2393 Issuance Date: April 16, 2014

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_x, 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 visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)
- (iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
 - (1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.
 - (2) Records of all observations shall be maintained.
 - (3) Visible emissions observations of air emission sources or enclosed facilities 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 air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet 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.

(4) 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)(7) and (a)(7)(A)
- (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)(7)(B) 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. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)
- (iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following

periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:

- (1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.
- (2) Records of all observations shall be maintained.
- (3) Visible emissions observations of sources 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 sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source 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.
- (4) 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)(8) and (a)(8)(A)
 - (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)(8)(B) 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.

- D. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
 - E. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
 - F. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
 - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
 - (ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)
 - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
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.
- 6. The permit holder shall comply with certified registrations submitted to the TCEQ for purposes of establishing federally enforceable emission limits. A copy of the certified registration shall be maintained with the permit. Records sufficient to demonstrate compliance with the established limits shall be maintained. The certified registration and records demonstrating compliance shall be provided, on request, to representatives of the appropriate TCEQ regional office and any local air pollution control agency having jurisdiction over the site. The permit holder shall submit updated certified registrations when changes at the site require establishment of new emission limits. If changes result in emissions that do not remain below major source thresholds, the permit holder shall submit a revision application to codify the appropriate requirements in the permit.

Additional Monitoring Requirements

- 7. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached “CAM Summary” upon issuance of the permit. In addition, the permit holder shall comply with the following:
 - A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).
 - B. The permit holder shall report, consistent with the averaging time identified in the “CAM Summary,” deviations as defined by the deviation limit in the “CAM Summary.” Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).
 - C. 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 “CAM 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 in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).

- D. The permit holder shall operate the monitoring, identified in the attached “CAM Summary,” in accordance with the provisions of 40 CFR § 64.7.
 - E. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.
8. 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

9. 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
10. 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.
11. 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).

Compliance Requirements

- 12. 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.
- 13. 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

Permit Location

- 14. 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)

- 15. 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

- 16. For units SH-1, SH-2, SH-3, SH-4, SH-5, SH-6, and SH-7 (identified in the Certificate of Representation as units SH1, SH2, SH3, SH4, SH5, SH6, and SH7), located at the affected source identified by ORIS/Facility code 7900, 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 SO₂ and NO_x 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. SO₂ 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 SO₂.
- (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 SO₂ for the previous calendar year.

- (iii) Each ton of SO₂ emitted in excess of the acid rain emissions limitations for SO₂ 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 SO₂ 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 SO₂ 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_x 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_x under 40 CFR Part 76.

E. Excess emissions requirements for SO₂ and NO_x.

- (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_x 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 SO₂ allowances allocated by the EPA in 40 CFR Part 73 is enforceable only by the EPA Administrator.

Clean Air Interstate Rule Permit Requirements

17. For units SH-1, SH-2, SH-3, SH-4, SH-5, SH-6, and SH-7 (identified in the Certificate of Registration as units SH1, SH2, SH3, SH4, SH5, SH6, and SH7), located at the site identified by ORIS/Facility code 7900, 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 by EPA, 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_x and the CAIR SO₂ 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_x and the CAIR SO₂ 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_x source and each CAIR NO_x 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 SO₂ source and each CAIR SO₂ 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_x source with the CAIR NO_x 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 SO₂ source with the CAIR SO₂ emissions limitation.

C. NO_x emissions requirements

- (i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x 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_x units at the source, as determined in accordance with the requirements of 40 CFR Part 96, Subpart HH.
- (ii) A CAIR NO_x 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_x 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_x allowance was allocated.

- (iv) CAIR NO_x allowances shall be held in, deducted from or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FF or Subpart GG.
- (v) A CAIR NO_x allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x 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_x 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_x allowance to or from a CAIR NO_x unit's compliance account is incorporated automatically in this CAIR permit.

D. NO_x excess emissions requirement

- (i) If a CAIR NO_x source emits nitrogen oxides during any control period in excess of the CAIR NO_x emissions limitation, the owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x 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. SO₂ emissions requirements

- (i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, CAIR SO₂ 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 SO₂ units at the source, as determined in accordance with the requirements of 40 CFR Part 96, Subpart HHH.
- (ii) A CAIR SO₂ 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 SO₂ 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 SO₂ allowance was allocated.
- (iv) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FFF or Subpart GGG.
- (v) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ 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 SO₂ 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 SO₂ allowance to or from a CAIR SO₂ unit's compliance account is incorporated automatically in this CAIR permit.

F. SO₂ excess emissions requirements

- (i) If a CAIR SO₂ source emits sulfur dioxides during any control period in excess of the CAIR SO₂ emissions limitation, the owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ 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_x source and each CAIR NO_x unit at the source and the CAIR SO₂ source and each CAIR SO₂ 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_x designated representative for the source and each CAIR NO_x unit and the CAIR SO₂ designated representative for the source and each CAIR SO₂ 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_x Annual Trading Program and CAIR SO₂ 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_x Annual Trading Program and CAIR SO₂ Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program and CAIR SO₂ Trading Program.
- (ii) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source and a CAIR SO₂ source and each CAIR SO₂ unit at the source shall submit the reports required under the CAIR NO_x Annual Trading Program and the CAIR SO₂ Trading Program including those under 40 CFR Part 96, Subpart HH and Subpart HHH.
- H. The CAIR NO_x source and each CAIR NO_x unit shall meet the requirements of the CAIR NO_x Annual Trading Program contained in 40 CFR Part 96, Subparts AA through II.
- I. The CAIR SO₂ source and each CAIR SO₂ unit shall meet the requirements of the CAIR SO₂ Trading Program contained in 40 CFR Part 96, Subparts AAA through III.

- J. Any provision of the CAIR NO_x Annual Trading Program and the CAIR SO₂ Trading Program that applies to a CAIR NO_x source or CAIR SO₂ source or the CAIR designated representative of a CAIR NO_x source or CAIR SO₂ 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_x Annual Trading Program and the CAIR SO₂ Trading Program that applies to a CAIR NO_x unit or CAIR SO₂ unit or the CAIR designated representative of a CAIR NO_x unit or CAIR SO₂ unit shall also apply to the owners and operators of such unit.
- L. No provision of the CAIR NO_x Annual Trading Program, CAIR SO₂ 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_x source or CAIR NO_x unit or a CAIR SO₂ source or CAIR SO₂ 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

Applicable Requirements Summary

Unit Summary 25

Applicable Requirements Summary 28

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
EDG	SRIC Engines	N/A	60III-1	40 CFR Part 60, Subpart III	No changing attributes.
EDG	SRIC Engines	N/A	63ZZZZ-1	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GRP-CTWR	Emission Points/Stationary Vents/Process Vents	CLTWR-1, SCCTWR-1, SCCTWR-2, SCCTWR-3, SCCTWR-4, SCCTWR-5	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRP-OILVNT	Emission Points/Stationary Vents/Process Vents	SH-VNT-1A, SH-VNT-1B, SH-VNT-1C, SH-VNT-1D, SH-VNT-2A, SH-VNT-2B, SH-VNT-2C, SH-VNT-2D, SH-VNT-3A, SH-VNT-3B, SH-VNT-3C, SH-VNT-3D, SH-VNT-4A, SH-VNT-4B, SH-VNT-4C, SH-VNT-4D, SH-VNT-5A, SH-VNT-5B, SH-VNT-5C, SH-VNT-6A, SH-VNT-6B, SH-VNT-6C, SH-VNT-6D, SH-VNT-7A, SH-VNT-7B, SH-VNT-7C, SH-VNT-7D	R5121-2	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
GRP-SCT6&7	Emission Points/Stationary Vents/Process Vents	SH-6, SH-7	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRP-SCT6&7	Stationary Turbines	SH-6, SH-7	60KKKK-1	40 CFR Part 60, Subpart KKKK	No changing attributes.
GRP-SCTURB	Emission Points/Stationary Vents/Process Vents	SH-1, SH-2, SH-3, SH-4	R1111-1	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
GRP-SCTURB	Stationary Turbines	SH-1, SH-2, SH-3, SH-4	60GG-1	40 CFR Part 60, Subpart GG	No changing attributes.
SCTEMP	Stationary Turbines	N/A	60KKKK-1	40 CFR Part 60, Subpart KKKK	No changing attributes.
SH-5	Boilers/Steam Generators/Steam Generating Units	N/A	60DA-1	40 CFR Part 60, Subpart Da	No changing attributes.
SH-5	Emission Points/Stationary Vents/Process Vents	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
SH-5	Stationary Turbines	N/A	60GG-1	40 CFR Part 60, Subpart GG	No changing attributes.
SH-DSLUNLD	Loading/Unloading Operations	N/A	R5211-1	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
SH-PARTCLN	Solvent Degreasing Machines	N/A	R5412	30 TAC Chapter 115, Degreasing Processes	No changing attributes.
SH-USEDLDG	Loading/Unloading Operations	N/A	R5211-2	30 TAC Chapter 115, Loading and Unloading of VOC	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)
EDG	EU	60III-1	CO	40 CFR Part 60, Subpart III	§ 60.4205(b) § 60.4202(e)(1) § 60.4206 § 60.4207(b) § 60.4211(c) [G]§ 60.4211(f) § 60.4211(g) § 60.4211(g)(3) § 60.4218 § 94.8(a)(2)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 5.0 g/KW-hr, as stated in 40 CFR 60.4202(e)-(f) and 40 CFR 94.8(a)(2) and 40 CFR 1042.101.	§ 60.4209(a) § 60.4211(g)(3) [G]§ 60.4212	§ 60.4211(g)(3) § 60.4214(b)	[G]§ 60.4214(d)
EDG	EU	60III-1	Total Hydrocarbons/NOx	40 CFR Part 60, Subpart III	§ 60.4205(b) § 60.4202(e)(1) § 60.4206 § 60.4207(b) § 60.4211(c) [G]§ 60.4211(f) § 60.4211(g) § 60.4211(g)(3) § 60.4218 § 94.8(a)(2)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder and is a 2007 - 2012 model year must comply with a THC+NOx emission limit of 7.8 g/KW-hr, as stated in 40 CFR 60.4202(e)(1) and 40 CFR 94.8(a)(2).	§ 60.4209(a) § 60.4211(g)(3) [G]§ 60.4212	§ 60.4211(g)(3) § 60.4214(b)	[G]§ 60.4214(d)

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)
EDG	EU	60III-1	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(e)(1) § 60.4206 § 60.4207(b) § 60.4211(c) [G]§ 60.4211(f) § 60.4211(g) § 60.4211(g)(3) § 60.4218 § 94.8(a)(2)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder and is a 2007 - 2012 model year must comply with a PM emission limit of 0.27 g/KW-hr, as stated in 40 CFR 60.4202(e)(1) and 40 CFR 94.8(a)(2).	§ 60.4209(a) § 60.4211(g)(3) [G]§ 60.4212	§ 60.4211(g)(3) § 60.4214(b)	[G]§ 60.4214(d)
EDG	EU	63ZZZZ-1	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	A new/reconstructed stationary RICE located at an area source, or located at a major source of HAP emissions and is a spark ignition (SI) 2SLB < 500 HP, SI 4 SLB < 250 HP, or 4SRB, compression ignition (CI), emergency or limited use, or which combusts landfill or digester gas at > 10% of the gross heat input < 500 HP must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart IIII, for CI engines or 40 CFR Part 60, Subpart JJJJ, for SI engines.	None	None	None

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)
GRP-CTWR	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	None	§ 115.126 § 115.126(4)	None
GRP-OILVNT	EP	R5121-2	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(c)(1)(B) § 115.127(c) § 115.127(c)(1)	A vent gas stream with a combined weight of the VOC or classes of compounds specified in § 115.121(c)(1)(B)-(C) of 100 lbs (45.4 kg), or less, in a continuous 24-hour period is exempt from § 115.121(c)(1).	None	§ 115.126 § 115.126(4)	None
GRP-SCT6&7	EP	R1111-1	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

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)
GRP-SCT6&7	EU	60K K K K -1	NO _x	40 CFR Part 60, Subpart K K K K	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4333(a)	New turbine firing natural gas with a heat input at peak load greater than 50 MMBtu/h and less than or equal to 850 MMBtu/h must meet the nitrogen oxides emission standard of 25 ppm at 15 percent O ₂ .	§ 60.4335(b)(1) § 60.4340(b) § 60.4340(b)(1) [G]§ 60.4345 § 60.4350(a) § 60.4350(b) § 60.4350(c) § 60.4350(d) § 60.4350(e) § 60.4350(f) § 60.4350(g) [G]§ 60.4400(a) § 60.4400(b) § 60.4400(b)(1) § 60.4400(b)(4) § 60.4400(b)(5) § 60.4400(b)(6) [G]§ 60.4405	[G]§ 60.4345 § 60.4350(b)	§ 60.4350(d) § 60.4375(a) § 60.4380 [G]§ 60.4380(b) § 60.4395
GRP-SCT6&7	EU	60K K K K -1	SO ₂	40 CFR Part 60, Subpart K K K K	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO ₂ /J (0.060 lb SO ₂ /MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.	§ 60.4365 ** See Periodic Monitoring Summary	§ 60.4365(a)	None
GRP-SCTURB	EP	R1111-1	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

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)
GRP-SCTURB	EU	60GG-1	SO ₂	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) ** See Periodic Monitoring Summary	None	None
GRP-SCTURB	EU	60GG-1	NO _x	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(c) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(iii) [G]§ 60.335(a) § 60.335(b)(2) § 60.335(b)(6)	[G]§ 60.334(b) § 60.334(c)	§ 60.334(j) § 60.334(j)(5)
SCTEMP	EU	60KKKK-1	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4320(b) § 60.4325 § 60.4333(a) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) [G]§ 60.4345	New turbine firing natural gas with a heat input at peak load greater than 50 MMBtu/h and less than or equal to 850 MMBtu/h must meet the nitrogen oxides emission standard of 150 ng/J of useful output (1.2 lb/MWh).	§ 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) [G]§ 60.4345 § 60.4350(a) § 60.4350(b) § 60.4350(c) § 60.4350(d) § 60.4350(e) § 60.4350(f) § 60.4350(f)(1) § 60.4350(g) [G]§ 60.4400(a) § 60.4400(b) § 60.4400(b)(1) § 60.4400(b)(4) § 60.4400(b)(6) [G]§ 60.4405	[G]§ 60.4345 § 60.4350(b)	[G]§ 60.4345 § 60.4350(d) § 60.4375(a) § 60.4380 [G]§ 60.4380(b) § 60.4395

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)
SCTEMP	EU	60K1111-1	SO ₂	40 CFR Part 60, Subpart K1111	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO ₂ /J (0.060 lb SO ₂ /MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.	§ 60.4365 § 60.4365(a) § 60.4415(a) § 60.4415(a)(1) § 60.4415(a)(1)(ii)	§ 60.4365(a)	§ 60.4375(a)

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)
SH-5	EU	60DA-1	NO _x	40 CFR Part 60, Subpart Da	§ 60.44Da(d)(1) § 60.48Da(a)	No owner or operator shall discharge any gases that contain NO _x (expressed as NO ₂) 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(k) [G]§ 60.48Da(k)(2) § 60.49Da(c)(2) § 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)(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) § 60.50Da(f)	[G]§ 60.49Da(s) [G]§ 60.49Da(w)	§ 60.48Da(c) [G]§ 60.48Da(s) [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)
SH-5	EU	60DA-1	SO ₂	40 CFR Part 60, Subpart Da	§ 60.43Da(b)(2) § 60.43Da(g) § 60.48Da(a)	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(c) § 60.50Da(a) § 60.50Da(c)(4) § 60.50Da(f) ** See Periodic Monitoring Summary	None	[G]§ 60.48Da(s) § 60.51Da(a)

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)
SH-5	EP	R1111-1	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
SH-5	EU	60GG-1	SO ₂	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) ** See Periodic Monitoring Summary	None	None
SH-5	EU	60GG-1	NOX	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(c) § 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) § 60.335(b)(6) ** See CAM Summary	[G]§ 60.334(b) § 60.334(c)	§ 60.334(j) § 60.334(j)(5)
SH-DSLUNLD	EU	R5211-1	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(b)(2) § 115.212(b)(2) § 115.214(b)(1)(B) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division except as specified.	§ 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None

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)
SH-PARTCLN	EU	R5412	VOC	30 TAC Chapter 115, Degreasing Processes	§ 115.412(1) [G]§ 115.412(1)(A) § 115.412(1)(C) § 115.412(1)(D) [G]§ 115.412(1)(F) § 115.417(1)	Cold solvent cleaning. No person shall own or operate a system utilizing a VOC for the cold solvent cleaning of objects without the controls listed in §115.412(1)(A)-(F).	[G]§ 115.415(1) § 115.415(3) ** See Periodic Monitoring Summary	None	None
SH-USEDLDG	EU	R5211-2	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(b)(2) § 115.214(b)(1)(B) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division except as specified.	§ 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None

Additional Monitoring Requirements

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CAM Summary

Unit/Group/Process Information	
ID No.: SH-5	
Control Device ID No.: SH-5	Control Device Type: Selective Catalytic Reduction (SCR)
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 60GG-1
Pollutant: NO _x	Main Standard: § 60.332(a)(1)
Monitoring Information	
Indicator: Nitrogen Oxides Concentration	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: Maximum NO _x concentration = value calculated by equation in §60.332(a)(1)	
<p>CAM Text: Use a continuous emission monitoring system (CEMS) to measure and record the concentration of nitrogen oxides and either oxygen or carbon dioxide in the exhaust stream of the control device.</p> <p>NO_x Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour).</p> <p>The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-SCT6&7	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-1
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: Combust only pipeline quality natural gas (burn no alternate fuels)	
Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-SCT6&7	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart KKKK	SOP Index No.: 60KKKK-1
Pollutant: SO ₂	Main Standard: § 60.4330(a)(2)
Monitoring Information	
Indicator: Contract documentation	
Minimum Frequency: N/A	
Averaging Period: N/A	
Deviation Limit: Maximum total sulfur content of 20.0 grains (gr) per 100 standard cubic feet (scf) of natural gas.	
<p>Periodic Monitoring Text: The permit holder shall continuously possess a current valid purchase contract, tariff sheet, or transportation contract that specifies that the maximum total sulfur content of the natural gas is 20.0 gr or less per 100 scf of gas (per 40 CFR § 60.4365(a)). This maximum sulfur content will ensure that the 0.060 lb/MMBtu SO₂ limit specified in 40 CFR Part 60, Subpart KKKK will not be exceeded, as demonstrated below:</p>	
<p>SO₂ emissions at 20 gr S per 100 scf = (20 gr S/100 scf) x (MMscf/1,000 MMBtu) x (lb/7,000 gr) x (10⁶ scf/MMdscf) x (2 lb SO₂/lb S) = 0.057 lb SO₂/MMBtu.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-SCTURB	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-1
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: Combust only pipeline quality natural gas (burn no alternate fuels)	
Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-SCTURB	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 60GG-1
Pollutant: SO ₂	Main Standard: § 60.333(b)
Monitoring Information	
Indicator: Contract documentation	
Minimum Frequency: N/A	
Averaging Period: N/A	
Deviation Limit: Maximum total sulfur (S) content of 20.0 grains (gr) per 100 standard cubic feet (scf) of natural gas	
<p>Periodic Monitoring Text: The permit holder shall continuously possess a current valid purchase contract, tariff sheet, or transportation contract that the maximum total sulfur content of the natural gas is 20.0 gr or less per 100 scf of gas (per 40 CFR §60.334(h)(3)(i)). This maximum sulfur content will ensure that the 0.8 percent by weight (% wt) sulfur content limit specified for the fuel in 40 CFR Part 60, Subpart GG will not be exceeded, as demonstrated below:</p>	
$\% \text{ wt of sulfur in fuel at } 20 \text{ gr S per } 100 \text{ scf} = (20 \text{ gr S}/100 \text{ scf gas}) \times (1 \text{ lb S}/7,000 \text{ gr S}) \times (1 \text{ lb-mole gas}/16.9 \text{ lb gas}^*) \times (379.6 \text{ scf gas}/\text{lb-mole gas}) \times (100 \text{ lb gas}/10^2 \text{ lb gas}) = 0.064 \text{ lb S}/10^2 \text{ lb gas, i.e. } \% \text{ wt S}$	
<p>*This molecular mass value is representative of the fuel combusted in the unit, but may vary to a minor degree.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: SH-5	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-1
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: Combust only pipeline quality natural gas (burn no alternate fuels)	
Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: SH-5	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 60GG-1
Pollutant: SO ₂	Main Standard: § 60.333(b)
Monitoring Information	
Indicator: Contract documentation	
Minimum Frequency: N/A	
Averaging Period: N/A	
Deviation Limit: Maximum total sulfur (S) content of 20.0 grains (gr) per 100 standard cubic feet (scf) of natural gas	
<p>Periodic Monitoring Text: The permit holder shall continuously possess a current valid purchase contract, tariff sheet, or transportation contract that the maximum total sulfur content of the natural gas is 20.0 gr or less per 100 scf of gas (per 40 CFR §60.334(h)(3)(i)). This maximum sulfur content will ensure that the 0.8 percent by weight (% wt) sulfur content limit specified for the fuel in 40 CFR Part 60, Subpart GG will not be exceeded, as demonstrated below:</p>	
$\% \text{ wt of sulfur in fuel at } 20 \text{ gr S per } 100 \text{ scf} = (20 \text{ gr S}/100 \text{ scf gas}) \times (1 \text{ lb S}/7,000 \text{ gr S}) \times (1 \text{ lb-mole gas}/16.9 \text{ lb gas}^*) \times (379.6 \text{ scf gas}/\text{lb-mole gas}) \times (100 \text{ lb gas}/10^2 \text{ lb gas}) = 0.064 \text{ lb S}/10^2 \text{ lb gas, i.e. } \% \text{ wt S}$	
<p>*This molecular mass value is representative of the fuel combusted in the unit, but may vary to a minor degree.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: SH-5	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Da	SOP Index No.: 60DA-1
Pollutant: SO ₂	Main Standard: § 60.43Da(b)(2)
Monitoring Information	
Indicator: Contract documentation	
Minimum Frequency: N/A	
Averaging Period: N/A	
Deviation Limit: Maximum total sulfur content of 20.0 grains (gr) per 100 standard cubic feet (scf) of natural gas	
<p>Periodic Monitoring Text: The permit holder shall continuously possess a current valid purchase contract, tariff sheet, or transportation contract that specifies that the maximum total sulfur content of the natural gas is 20.0 gr or less per 100 scf of gas (per 40 CFR §60.334(h)(3)(i)). This maximum sulfur content will ensure that the 0.20 lb/MMBtu SO₂ limit specified in 40 CFR Part 60, Subpart Da will not be exceeded, as demonstrated below:</p>	
$\text{SO}_2 \text{ emissions at } 20 \text{ gr S per } 100 \text{ scf} = (20 \text{ gr S}/100 \text{ scf}) \times (\text{MMscf}/1,000 \text{ MMBtu}) \times (\text{lb}/7,000 \text{ gr}) \times (10^6 \text{ scf}/\text{MMdscf}) \times (2 \text{ lb SO}_2/\text{lb S}) = 0.057 \text{ lb SO}_2/\text{MMBtu}$	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: SH-PARTCLN	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Degreasing Processes	SOP Index No.: R5412
Pollutant: VOC	Main Standard: § 115.412(1)
Monitoring Information	
Indicator: Visual Inspection	
Minimum Frequency: Monthly	
Averaging Period: n/a	
Deviation Limit: Any monitoring data indicating non-compliance with 30 TAC § 115.412(1)(A), (1)(C), (1)(D) or (1)(F) shall be considered and reported as a deviation.	
Periodic Monitoring Text: Inspect equipment and record data monthly to ensure compliance with any applicable requirements in § 115.412(1)(A), (1)(C), (1)(D), and (1)(F). Any monitoring data which indicates that the cold cleaner is not in compliance with the applicable requirements of § 115.412(1)(A), (1)(C), (1)(D), or (1)(F) shall be considered and reported as a deviation.	

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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		
EDG	N/A	30 TAC Chapter 115, Vent Gas Controls	The exhaust streams are from combustion units not being used as VOC control devices
EDG	N/A	30 TAC Chapter 117, Subchapter E, Division 1	Units are not power boilers or gas turbines.
GRP-CHEMTK	SH-TNK20, SH-TNK21, SH-TNK22, SH-TNK23, SH-TNK24, SH-TNK25, SH-TNK26	30 TAC Chapter 115, Storage of VOCs	VOC vapor pressure < 1.5 psia
GRP-CHEMTK	SH-TNK20, SH-TNK21, SH-TNK22, SH-TNK23, SH-TNK24, SH-TNK25, SH-TNK26	40 CFR Part 60, Subpart K	Tanks were placed into service after May 19, 1978
GRP-CHEMTK	SH-TNK20, SH-TNK21, SH-TNK22, SH-TNK23, SH-TNK24, SH-TNK25, SH-TNK26	40 CFR Part 60, Subpart Ka	Tanks were placed into service after July 23, 1984
GRP-CHEMTK	SH-TNK20, SH-TNK21, SH-TNK22, SH-TNK23, SH-TNK24, SH-TNK25, SH-TNK26	40 CFR Part 60, Subpart Kb	Tank volumes are less than 75 m ³

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		
GRP-CTWR	CLTWR-1, SCCTWR-1, SCCTWR-2, SCCTWR-3, SCCTWR-4, SCCTWR-5	40 CFR Part 63, Subpart Q	No chromium based water treatment chemicals used.
GRP-DSLTK	SH-TNK17, SH-TNK18	30 TAC Chapter 115, Storage of VOCs	VOC vapor pressure < 1.5 psia
GRP-DSLTK	SH-TNK17, SH-TNK18	40 CFR Part 60, Subpart K	Tanks were placed into service after May 19, 1978
GRP-DSLTK	SH-TNK17, SH-TNK18	40 CFR Part 60, Subpart Ka	Tanks were placed into service after July 23, 1984
GRP-DSLTK	SH-TNK17, SH-TNK18	40 CFR Part 60, Subpart Kb	Tank volumes are less than 75 m ³
GRP-HTR	HTR-01, HTR-02, HTR-03	30 TAC Chapter 115, Vent Gas Controls	The exhaust streams are from combustion units not being used as VOC control devices
GRP-HTR	HTR-01, HTR-02, HTR-03	30 TAC Chapter 117, Subchapter E, Division 1	Units are not power boilers or gas turbines.

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		
GRP-OILRES	SH-TNK1, SH-TNK2, SH-TNK27, SH-TNK28, SH-TNK29, SH-TNK3, SH-TNK30, SH-TNK31, SH-TNK32, SH-TNK33, SH-TNK34, SH-TNK35, SH-TNK36, SH-TNK37, SH-TNK38, SH-TNK39, SH-TNK4, SH-TNK40, SH-TNK41, SH-TNK42, SH-TNK43, SH-TNK44, SH-TNK5, SH-TNK6	30 TAC Chapter 115, Storage of VOCs	VOC vapor pressure < 1.5 psia
GRP-OILRES	SH-TNK1, SH-TNK2, SH-TNK27, SH-TNK28, SH-TNK29, SH-TNK3, SH-TNK30, SH-TNK31, SH-TNK32, SH-TNK33, SH-TNK34, SH-TNK35, SH-TNK36, SH-TNK37, SH-TNK38, SH-TNK39, SH-TNK4, SH-TNK40, SH-TNK41, SH-TNK42, SH-TNK43, SH-TNK44, SH-TNK5, SH-TNK6	40 CFR Part 60, Subpart K	Tanks were placed into service after May 19, 1978

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		
GRP-OILRES	SH-TNK1, SH-TNK2, SH-TNK27, SH-TNK28, SH-TNK29, SH-TNK3, SH-TNK30, SH-TNK31, SH-TNK32, SH-TNK33, SH-TNK34, SH-TNK35, SH-TNK36, SH-TNK37, SH-TNK38, SH-TNK39, SH-TNK4, SH-TNK40, SH-TNK41, SH-TNK42, SH-TNK43, SH-TNK44, SH-TNK5, SH-TNK6	40 CFR Part 60, Subpart Ka	Tanks were placed into service after July 23, 1984
GRP-OILRES	SH-TNK1, SH-TNK2, SH-TNK27, SH-TNK28, SH-TNK29, SH-TNK3, SH-TNK30, SH-TNK31, SH-TNK32, SH-TNK33, SH-TNK34, SH-TNK35, SH-TNK36, SH-TNK37, SH-TNK38, SH-TNK39, SH-TNK4, SH-TNK40, SH-TNK41, SH-TNK42, SH-TNK43, SH-TNK44, SH-TNK5, SH-TNK6	40 CFR Part 60, Subpart Kb	Tank volumes are less than 75 m ³

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		
GRP-OILTNK	SH-TNK10, SH-TNK11, SH-TNK12, SH-TNK13, SH-TNK47, SH-TNK7, SH-TNK8, SH-TNK9	30 TAC Chapter 115, Storage of VOCs	VOC vapor pressure < 1.5 psia
GRP-OILTNK	SH-TNK10, SH-TNK11, SH-TNK12, SH-TNK13, SH-TNK47, SH-TNK7, SH-TNK8, SH-TNK9	40 CFR Part 60, Subpart K	Tanks were placed into service after May 19, 1978
GRP-OILTNK	SH-TNK10, SH-TNK11, SH-TNK12, SH-TNK13, SH-TNK47, SH-TNK7, SH-TNK8, SH-TNK9	40 CFR Part 60, Subpart Ka	Tanks were placed into service after July 23, 1984
GRP-OILTNK	SH-TNK10, SH-TNK11, SH-TNK12, SH-TNK13, SH-TNK47, SH-TNK7, SH-TNK8, SH-TNK9	40 CFR Part 60, Subpart Kb	Tank volumes are less than 75 m ³
GRP-SCT6&7	SH-6, SH-7	30 TAC Chapter 115, Vent Gas Controls	The exhaust streams are from combustion units not being used as VOC control devices
GRP-SCT6&7	SH-6, SH-7	30 TAC Chapter 117, Subchapter E, Division 1	Turbines placed into service after Dec. 31, 1995
GRP-SCT6&7	SH-6, SH-7	40 CFR Part 63, Subpart YYYY	Site is not a major source of HAPs

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		
GRP-SCTURB	SH-1, SH-2, SH-3, SH-4	30 TAC Chapter 115, Vent Gas Controls	The exhaust streams are from combustion units not being used as VOC control devices
GRP-SCTURB	SH-1, SH-2, SH-3, SH-4	30 TAC Chapter 117, Subchapter E, Division 1	Placed into service after Dec 31, 1995.
GRP-SCTURB	SH-1, SH-2, SH-3, SH-4	40 CFR Part 63, Subpart YYYY	Site is not a major source of HAPs
GRP-SEPRTR	SH-TNK45, SH-TNK46, TANK 5-4	30 TAC Chapter 115, Storage of VOCs	VOC vapor pressure < 1.5 psia
GRP-SEPRTR	SH-TNK45, SH-TNK46, TANK 5-4	30 TAC Chapter 115, Water Separation	VOC vapor pressure < 1.5 psia
GRP-SEPRTR	SH-TNK45, SH-TNK46, TANK 5-4	40 CFR Part 60, Subpart K	Tanks were placed into service after May 19, 1978
GRP-SEPRTR	SH-TNK45, SH-TNK46, TANK 5-4	40 CFR Part 60, Subpart Ka	Tanks were placed into service after July 23, 1984
GRP-SEPRTR	SH-TNK45, SH-TNK46, TANK 5-4	40 CFR Part 60, Subpart Kb	Tank volumes are less than 75 m ³
GRP-SEPRTR	SH-TNK45, SH-TNK46, TANK 5-4	40 CFR Part 63, Subpart VV	This subpart is not referenced by any other subpart of 40 CFR Parts 60, 61 or 63 that is applicable to the site
SH-5	N/A	30 TAC Chapter 117, Subchapter E, Division 1	Placed into service after Dec. 31, 1995.

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		
SH-5	N/A	40 CFR Part 63, Subpart JJJJJJ	Heat recovery steam generators are not included in the definition of a boiler.
SH-5	N/A	30 TAC Chapter 115, Vent Gas Controls	The exhaust streams are from combustion units not being used as VOC control devices
SH-5	N/A	40 CFR Part 63, Subpart YYYY	Site is not a major source of HAPs
SH-CLARIFY	N/A	30 TAC Chapter 115, Storage of VOCs	VOC vapor pressure < 1.5 psia
SH-CLARIFY	N/A	40 CFR Part 60, Subpart K	Tanks were placed into service after May 19, 1978
SH-CLARIFY	N/A	40 CFR Part 60, Subpart Ka	Tanks were placed into service after July 23, 1984
SH-CLARIFY	N/A	40 CFR Part 60, Subpart Kb	Tank volumes are less than 75 m ³
SH-EPOXY	N/A	40 CFR Part 63, Subpart MMMM	Site is not a major source of HAPs
SH-PAINT	N/A	40 CFR Part 63, Subpart MMMM	Site is not a major source of HAPs
SH-PARTCLN	N/A	40 CFR Part 63, Subpart T	Cleaner does not use halogenated solvents
SH-TNK19	N/A	30 TAC Chapter 115, Storage of VOCs	Tank capacity is less than 1,000 gal
SH-TNK48	N/A	30 TAC Chapter 115, Storage of VOCs	VOC vapor pressure < 1.5 psia
SH-TNK48	N/A	30 TAC Chapter 115, Water Separation	VOC vapor pressure < 1.5 psia

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		
SH-TNK48	N/A	40 CFR Part 60, Subpart K	Tanks were placed into service after May 19, 1978
SH-TNK48	N/A	40 CFR Part 60, Subpart Ka	Tanks were placed into service after July 23, 1984
SH-TNK48	N/A	40 CFR Part 60, Subpart Kb	Tank volumes are less than 75 m ³
SH-TNK48	N/A	40 CFR Part 63, Subpart VV	This subpart is not referenced by any other subpart of 40 CFR Parts 60, 61, or 63 that is applicable to the site
SH-TNK49	N/A	30 TAC Chapter 115, Storage of VOCs	VOC vapor pressure < 1.5 psia
SH-TNK49	N/A	40 CFR Part 60, Subpart K	Tanks were placed into service after May 19, 1978.
SH-TNK49	N/A	40 CFR Part 60, Subpart Ka	Tanks were placed into service after July 23, 1984
SH-TNK49	N/A	40 CFR Part 60, Subpart Kb	Tank volumes are less than 75 m ³
SH-TNK50	N/A	30 TAC Chapter 115, Storage of VOCs	VOC vapor pressure < 1.5 psia
SH-TNK50	N/A	40 CFR Part 60, Subpart K	Tanks were placed into service after May 19, 1978
SH-TNK50	N/A	40 CFR Part 60, Subpart Ka	Tanks were placed into service after July 23, 1984
SH-TNK50	N/A	40 CFR Part 60, Subpart Kb	Tank volumes are less than 75m ³

New Source Review Authorization References

New Source Review Authorization References 57

New Source Review Authorization References by Emission Unit..... 58

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.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX1012M2	Issuance Date: 10/02/2015
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.	
Authorization No.: 48106	Issuance Date: 10/02/2015
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.102	Version No./Date: 09/04/2000
Number: 106.227	Version No./Date: 09/04/2000
Number: 106.242	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.265	Version No./Date: 09/04/2000
Number: 106.371	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.475	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
CLTWR-1	Cooling Tower 1	48106, PSDTX1012M2
EDG	Two Diesel Fired Emergency Generator Engines	48106, PSDTX1012M2
HTR-01	Inlet Air Heater 1	48106, PSDTX1012M2
HTR-02	Inlet Air Heater 2	48106, PSDTX1012M2
HTR-03	Inlet Air Heater 3	48106, PSDTX1012M2
SCCTWR-1	Simple Cycle Cooling Tower 1	48106, PSDTX1012M2
SCCTWR-2	Simple Cycle Cooling Tower 2	48106, PSDTX1012M2
SCCTWR-3	Simple Cycle Cooling Tower 3	48106, PSDTX1012M2
SCCTWR-4	Simple Cycle Cooling Tower 4	48106, PSDTX1012M2
SCCTWR-5	Simple Cycle Cooling Tower 5	48106, PSDTX1012M2
SCTEMP	SC Turbine Maint Replacement (SH1-SH4,SH6,SH7)	48106, PSDTX1012M2
SH-1	Gas Turbine 1	48106, PSDTX1012M2
SH-2	Gas Turbine 2	48106, PSDTX1012M2
SH-3	Gas Turbine 3	48106, PSDTX1012M2
SH-4	Gas Turbine 4	48106, PSDTX1012M2
SH-5	Heat Recovery Steam Generator 5	48106, PSDTX1012M2
SH-5	Unit 5 Combined Cycle Gas Turbine	48106, PSDTX1012M2
SH-6	Unit 6 Simple Cycle Gas Turbine	48106, PSDTX1012M2

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
SH-6	Unit 6 Simple Cycle Gas Turbine Stack	48106, PSDTX1012M2
SH-7	Unit 7 Simple Cycle Gas Turbine	48106, PSDTX1012M2
SH-7	Unit 7 Simple Cycle Gas Turbine Stack	48106, PSDTX1012M2
SH-CLARIFY	Clarifier	48106, PSDTX1012M2
SH-DSLUNLD	Diesel Unloading to Emergency Engine Storage Tanks	106.472/09/04/2000
SH-EPOXY	Maintenance Painting with Epoxy	48106, PSDTX1012M2
SH-PAINT	Maintenance Painting	106.263/11/01/2001
SH-PARTCLN	Parts Cleaner	106.454/11/01/2001
SH-TNK10	Unit 3 Underground Wash Water Tank	48106, PSDTX1012M2
SH-TNK11	Unit 4 Underground Wash Water Tank	48106, PSDTX1012M2
SH-TNK12	Unit 6 Underground Wash Water Tank	48106, PSDTX1012M2
SH-TNK13	Unit 7 Underground Wash Water Tank	48106, PSDTX1012M2
SH-TNK17	Diesel Fuel Tank for Emergency Engine	48106, PSDTX1012M2
SH-TNK18	Diesel Fuel Tank for Emergency Engine	48106, PSDTX1012M2
SH-TNK19	Propane Tanks for Forklifts	106.475/09/04/2000
SH-TNK1	Unit 1 Auxiliary Skid Lube Oil Reservoir	48106, PSDTX1012M2
SH-TNK20	Nalco PC11 Tote Tank	48106, PSDTX1012M2
SH-TNK21	Nalco 71D5 Tote Tank	48106, PSDTX1012M2

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
SH-TNK22	Nalco 73551 Tote Tank	48106, PSDTX1012M2
SH-TNK23	Nalco Core Shell 71301 Tote Tank	48106, PSDTX1012M2
SH-TNK24	Nalco Optimer 7199 Tote Tank	48106, PSDTX1012M2
SH-TNK25	Nalco Clear 7768 Tote Tank	48106, PSDTX1012M2
SH-TNK26	Nalco Trasar TRAC105 Tote Tank	48106, PSDTX1012M2
SH-TNK27	Generator Lube Oil Reservoir For Unit 1 Gas Turbin	48106, PSDTX1012M2
SH-TNK28	Generator Lube Oil Reservoir For Unit 2 Gas Turbin	48106, PSDTX1012M2
SH-TNK29	Generator Lube Oil Reservoir For Unit 3 Gas Turbin	48106, PSDTX1012M2
SH-TNK2	Unit 2 Auxiliary Skid Lube Oil Reservoir	48106, PSDTX1012M2
SH-TNK30	Generator Lube Oil Reservoir For Unit 4 Gas Turbin	48106, PSDTX1012M2
SH-TNK31	Generator Lube Oil Reservoir For Unit 6 Gas Turbin	48106, PSDTX1012M2
SH-TNK32	Generator Lube Oil Reservoir For Unit 7 Gas Turbin	48106, PSDTX1012M2
SH-TNK33	Hydraulic/Lube/Seal Oil Reservoir For Unit 5A Gas	48106, PSDTX1012M2
SH-TNK34	Lube Oil Reservoir For Unit 5C Steam Turbine	48106, PSDTX1012M2
SH-TNK35	Unit 1 Hydraulic Starter Oil Reservoir	48106, PSDTX1012M2
SH-TNK36	Unit 2 Hydraulic Starter Oil Reservoir	48106, PSDTX1012M2
SH-TNK37	Unit 3 Hydraulic Starter Oil Reservoir	48106, PSDTX1012M2
SH-TNK38	Unit 4 Hydraulic Starter Oil Reservoir	48106, PSDTX1012M2

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
SH-TNK39	Unit 6 Hydraulic Starter Oil Reservoir	48106, PSDTX1012M2
SH-TNK3	Unit 3 Auxiliary Skid Lube Oil Reservoir	48106, PSDTX1012M2
SH-TNK40	Unit 7 Hydraulic Starter Oil Reservoir	48106, PSDTX1012M2
SH-TNK41	Circulating Water Pump Lube Oil Reservoir	48106, PSDTX1012M2
SH-TNK42	Circulating Water Pump Lube Oil Reservoir	48106, PSDTX1012M2
SH-TNK43	Circulating Water Pump Lube Oil Reservoir	48106, PSDTX1012M2
SH-TNK44	Unit 5A Gas Compressor Oil Reservoir	48106, PSDTX1012M2
SH-TNK45	Oil/Water Separator Tank for Units 1-4 Spent Wash	48106, PSDTX1012M2
SH-TNK46	Oil/Water Separator Tank for Units 6-7 Spent Wash	48106, PSDTX1012M2
SH-TNK47	Underground Wash Water Tank for Unit 5A Gas Turbine	48106, PSDTX1012M2
SH-TNK48	Oil-Water Separator Tank	48106, PSDTX1012M2
SH-TNK49	Nalco H550 Storage Tank	48106, PSDTX1012M2
SH-TNK4	Unit 4 Auxiliary Skid Lube Oil Reservoir	48106, PSDTX1012M2
SH-TNK50	Sulfuric Acid Storage Tank	48106, PSDTX1012M2
SH-TNK5	Unit 6 Auxiliary Skid Lube Oil Reservoir	48106, PSDTX1012M2
SH-TNK6	Unit 7 Auxiliary Skid Lube Oil Reservoir	48106, PSDTX1012M2
SH-TNK7	Used Oil Tank	106.472/09/04/2000
SH-TNK8	Unit 1 Underground Wash Water Tank	48106, PSDTX1012M2

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
SH-TNK9	Unit 2 Underground Wash Water Tank	48106, PSDTX1012M2
SH-USEDLDG	Used Oil Loading to Tank Trucks	48106, PSDTX1012M2
SH-VNT-1A	Generator Lube Oil Vent for Unit 1 Gas Turbine	48106, PSDTX1012M2
SH-VNT-1B	Bearing Lube Oil Sump Vent for Unit 1 Gas Turbine	48106, PSDTX1012M2
SH-VNT-1C	Lube Oil Reservoir Vent for Unit 1 Gas Turbine	48106, PSDTX1012M2
SH-VNT-1D	Unit 1 Hydraulic Oil Starter Vent	48106, PSDTX1012M2
SH-VNT-2A	Generator Lube Oil Vent for Unit 2 Gas Turbine	48106, PSDTX1012M2
SH-VNT-2B	Bearing Lube Oil Sump Vent for Unit 2 Gas Turbine	48106, PSDTX1012M2
SH-VNT-2C	Lube Oil Reservoir Vent for Unit 2 Gas Turbine	48106, PSDTX1012M2
SH-VNT-2D	Unit 2 Hydraulic Oil Starter Vent	48106, PSDTX1012M2
SH-VNT-3A	Generator Lube Oil Vent for Unit 3 Gas Turbine	48106, PSDTX1012M2
SH-VNT-3B	Bearing Lube Oil Sump Vent for Unit 3 Gas Turbine	48106, PSDTX1012M2
SH-VNT-3C	Lube Oil Reservoir Vent for Unit 3 Gas Turbine	48106, PSDTX1012M2
SH-VNT-3D	Unit 3 Hydraulic Oil Starter Vent	48106, PSDTX1012M2
SH-VNT-4A	Generator Lube Oil Vent for Unit 4 Gas Turbine	48106, PSDTX1012M2
SH-VNT-4B	Bearing Lube Oil Sump Vent for Unit 4 Gas Turbine	48106, PSDTX1012M2
SH-VNT-4C	Lube Oil Reservoir Vent for Unit 4 Gas Turbine	48106, PSDTX1012M2
SH-VNT-4D	Unit 4 Hydraulic Oil Starter Vent	48106, PSDTX1012M2

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
SH-VNT-5A	Hydraulic Oil/Lube Oil Vent on Unit 5A Gas Turbine	48106, PSDTX1012M2
SH-VNT-5B	Generator Seal Oil Vent For Unit 5A Gas Turbine	48106, PSDTX1012M2
SH-VNT-5C	Lube Oil Vent For Unit 5C Steam Turbine	48106, PSDTX1012M2
SH-VNT-6A	Generator Lube Oil Vent for Unit 6 Gas Turbine	48106, PSDTX1012M2
SH-VNT-6B	Bearing Lube Oil Sump Vent for Unit 6 Gas Turbine	48106, PSDTX1012M2
SH-VNT-6C	Lube Oil Reservoir Vent for Unit 6 Gas Turbine	48106, PSDTX1012M2
SH-VNT-6D	Unit 6 Hydraulic Oil Starter Vent	48106, PSDTX1012M2
SH-VNT-7A	Generator Lube Oil Vent for Unit 7 Gas Turbine	48106, PSDTX1012M2
SH-VNT-7B	Bearing Lube Oil Sump Vent for Unit 7 Gas Turbine	48106, PSDTX1012M2
SH-VNT-7C	Lube Oil Reservoir Vent for Unit 7 Gas Turbine	48106, PSDTX1012M2
SH-VNT-7D	Unit 7 Hydraulic Oil Starter Vent	48106, PSDTX1012M2
TANK 5-4	Oil/Water Separator	48106, PSDTX1012M2

Appendix A

Acronym List 65

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 ₂ 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 _x	.....	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 ₂	.....	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..... 67

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
SH1 (6)	GE LM 6000 (~50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29, 30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29, 30	2,21,22
		CO	44.2	60.8	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	4.1	5.6	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	5.5	21,14	21,29,30,14	21
		SO ₂	0.3	0.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	6.1	21,24,26	21,24,26,29,30	21
SH1	GE LM 6000 (~50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		CO	9.5	41.4	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	1.2	5.3	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	17.5	21,14	21,29,30,14	21
		SO ₂	0.3	1.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	19.6	21,24,26	21,24,26,29,30	21

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
SH2 (6)	GE LM 6000 (~50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		CO	44.2	60.8	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	4.1	5.6	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	5.5	21,14	21,29,30,14	21
		SO ₂	0.3	0.5	2,21,24,7	2,8,21,24,29,30	2,21
NH ₃	4.5	6.1	21,24,26	21,24,26,29,30	21		
SH2	GE LM 6000 (~50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		CO	9.5	41.4	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	1.2	5.3	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	17.5	21,14	21,29,30,14	21

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		SO ₂	0.3	1.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	19.6	21,24,26	21,24,26,29,30	21
SH3 (6)	GE LM 6000 (~50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		CO	44.2	60.8	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	4.1	5.6	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	5.5	21,14	21,29,30,14	21
		SO ₂	0.3	0.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	6.1	21,24,26	21,24,26,29,30	21
SH3	GE LM 6000 (~50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,25,22,24,29,30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,25,22,24,29,30	2,21,22
		CO	9.5	41.4	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	1.2	5.3	21	21,29,30	21

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	17.5	21,14	21,29,30,14	21
		SO ₂	0.3	1.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	19.6	21,24,26	21,24,26,29,30	21
SH4 (6)	GE LM 6000 (~50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		CO	44.2	60.8	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	4.1	5.6	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	5.5	21,14	21,29,30,14	21
		SO ₂	0.3	0.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	6.1	21,24,26	21,24,26,29,30	21

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
SH4	GE LM 6000 (~ 50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		CO	9.5	41.4	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	1.2	5.3	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	17.5	21,14	21,29,30,14	21
		SO ₂	0.3	1.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	19.6	21,24,26	21,24,26,29,30	21
SH5 (7)	GE 7FA (~ 164 MW) HRSG (~ 681 MMBtu-hr) Combined Cycle	NO _x	46.7	191.4	2,21,22,24,25,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS)	247.0	-	2,19,21,22,24,25,27	2,21,22,24,25,29,30	2,21,22
		CO	98.4	403.3	21,22,24,25,27	21,24,25,29,30	21,22
		CO (MSS)	2200.0	-	21,22,24,25	21,24,25,29,30	21,22
		VOC	16.4	67.4	21	21,29,30	21

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		VOC (MSS)	150.0	-	21	21,29,30	21
		PM/PM ₁₀	32.8	134.5	21,14	21,29,30,14	21
		SO ₂	1.6	7.3	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	24.2	99.0	21,24,26	21,24,26,29,30	21
SH6 (6)	GE LM 6000 (~50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		CO	44.2	60.8	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	4.1	5.6	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	5.5	21,14	21,29,30,14	21
		SO ₂	0.3	0.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	6.1	21,24,26	21,24,26,29,30	21
SH6	GE LM 6000 (~50 MW) Simple Cycle	NO _x	8.6	37.8	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
	(with CO catalyst)	NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		CO	9.5	41.4	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	1.2	5.3	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	17.5	21,14	21,29,30,14	21
		SO ₂	0.3	1.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	19.6	21,24,26	21,24,26,29,30	21
SH7 (6)	GE LM 6000 (~50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		CO	44.2	60.8	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	4.1	5.6	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	5.5	21,14	21,29,30,14	21

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		SO ₂	0.3	0.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	6.1	21,24,26	21,24,26,29,30	21
SH7	GE LM 6000 (~50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (17)	203.7	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		NO _x (MSS) (18)	100.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		CO	9.5	41.4	21	11,21,29,30	21,22
		CO (MSS)	923.0	-	21	11,21,29,30	21,22
		VOC	1.2	5.3	21	21,29,30	21
		VOC (MSS)	17.6	-	21	21,29,30	21
		PM/PM ₁₀	4.0	17.5	21,14	21,29,30,14	21
		SO ₂	0.3	1.5	2,21,24,7	2,8,21,24,29,30	2,21
		NH ₃	4.5	19.6	21,24,26	21,24,26,29,30	21
SH8 (7)	GE 7FA (~173.9 MW) HRSG (~681 MMBtu-hr) Combined Cycle	NO _x	21.0	120.7	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		NO _x (MSS)	70.0	-	2,19,21,22,24,27	2,21,22,24,25,29,30	2,21,22
		NO _x (PHTN)	140.0	-	2,21,22,24,27	2,4,21,22,24,25,29,30	2,21,22
		CO	14.7	621.9	21	11,21,29,30	21,22

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		CO (MSS)	1,100.0	-	21	11,21,29,30	21,22
		VOC	6.7	69.5	21	21,29,30	21
		VOC (MSS)	85.5	-	21	21,29,30	21
		PM/PM ₁₀ /PM _{2.5}	18.4	80.8	21,14	21,29,30,14	21
		SO ₂	1.7	7.3	2,21,24,7	2,8,21,24,29,30	2,21
		H ₂ SO ₄	1.0	4.5	21,24,26	21,24,26,29,30	21
		NH ₃	26.0	134.1	21,24,26	21,24,26,29,30	21
		NH ₃ (MSS)	65.0	-	21	21,29,30	21
HTR-01 (8)	Inlet Air Heaters	NO _x	0.49	0.25	-	4,29,30	-
		CO	0.41	0.21	-	29,30	-
		VOC	0.03	0.01	-	29,30	-
		PM/PM ₁₀	0.04	0.02	-	29,30	-
		SO ₂	<0.01	<0.01	-	29,30	-
HTR-02 (8)	Inlet Air Heaters	NO _x	0.49	0.25	-	4,29,30	-
		CO	0.41	0.21	-	29,30	-
		VOC	0.03	0.01	-	29,30	-

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		PM/PM ₁₀	0.04	0.02	-	29,30	-
		SO ₂	<0.01	<0.01	-	29,30	-
HTR-03 (8)	Inlet Air Heaters	NO _x	0.49	0.25	-	4,29,30	-
		CO	0.41	0.21	-	29,30	-
		VOC	0.03	0.01	-	29,30	-
		PM/PM ₁₀	0.04	0.02	-	29,30	-
		SO ₂	<0.01	<0.01	-	29,30	-
SC CTWR-1 (9)	Simple Cycle Cooling Tower 1	VOC	2.20	0.05	-	29,30	-
		PM/PM ₁₀	0.21	0.42	-	29,30	-
		H ₂ SO ₄	<0.01	<0.01	-	29,30	-
		HOCl	0.02	<0.01	-	29,30	-
SC CTWR-2 (9)	Simple Cycle Cooling Tower 2	VOC	2.20	0.05	-	29,30	-
		PM/PM ₁₀	0.21	0.42	-	29,30	-
		H ₂ SO ₄	<0.01	<0.01	-	29,30	-
		HOCl	0.02	<0.01	-	29,30	-
SC CTWR-3 (9)	Simple Cycle	VOC	2.20	0.05	-	29,30	-

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
	Cooling Tower 3	PM/PM ₁₀	0.21	0.42	-	29,30	-
		H ₂ SO ₄	<0.01	<0.01	-	29,30	-
		HOCl	0.02	<0.01	-	29,30	-
SC CTWR-4 (9)	Simple Cycle Cooling Tower 4	VOC	1.85	0.04	-	29,30	-
		PM/PM ₁₀	0.03	0.06	-	29,30	-
		H ₂ SO ₄	<0.01	<0.01	-	29,30	-
		HOCl	<0.01	<0.01	-	29,30	-
CLTWR-1 (7)	Cooling Tower 1 (combined cycle)	VOC	0.80	1.54	-	29,30	-
		PM/PM ₁₀	2.74	12.0	-	29,30	-
		H ₂ SO ₄	<0.01	<0.01	-	29,30	-
		HOCl	0.53	0.11	-	29,30	-
SC PB FUG (5)	Simple Cycle Power Block Fugitives	VOC	0.01	0.06	-	29,30	-
		H ₂ S	<0.01	<0.01	-	29,30	-
SC MS FUG (5)	Simple Cycle Natural Gas Meter Skid	VOC	0.05	0.21	-	29,30	-
		H ₂ S	<0.01	<0.01	-	29,30	-
CC PB FUG (5)	Combined Cycle	VOC	0.02	0.07	-	29,30	-

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
	Power Block Fugitives	H ₂ S	<0.01	<0.01	-	29,30	-
CC MS FUG (5)	Combined Cycle Natural Gas Meter Skid	VOC	0.05	0.22	-	29,30	-
		H ₂ S	<0.01	<0.01	-	29,30	-
SC AMFUG (5)	Simple Cycle Ammonia Fugitives	NH ₃	0.25	1.1	17	29,30	-
CC AMFUG (5)	Combined Cycle Ammonia Fugitives	NH ₃	0.11	0.46	17	29,30	-
TANK 5-4	Oil/Water Separator	VOC	0.05	0.01	-	29,30	-
EDG (10)	Emergency Diesel Generator Twin Pack	NO _x	7.3	3.2	-	18,29,30	-
		CO	1.4	0.6	-	18,29,30	-
		VOC	0.37	0.14	-	18,29,30	-
		PM/PM ₁₀	0.2	0.1	-	18,29,30	-
		SO ₂	<0.01	<0.01	-	18,29,30	-
SC-VNTS (11)	Simple Cycle Oil Vents	PM ₁₀	0.25	1.08	14	29,30	-
		VOC	0.28	1.24	-	29,30	-
CC-VNTS (12)	Combined Cycle	PM ₁₀	0.07	0.13	14	29,30	-

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
	Oil Vents	VOC	0.08	0.18	-	29,30	-
WTTNKS (13)	Water Treatment Chemical Storage Tanks	VOC	4.48	1.28	-	29,30	-
		H ₂ SO ₄	0.02	<0.01	-	29,30	-
OILRES (14)	Circulating Water Pump/Gas Compressor Lube Oil Reservoir	VOC	<0.01	<0.01	-	29,30	-
WASHTNKS (15)	Underground Wash Water Tanks	VOC	0.46	0.05	-	29,30	-
MSSFUG (5)	Non-ILE Maintenance Activities Attachment B	VOC	90.22	3.97	-	28,29,30	-
		PM ₁₀	1.12	0.18	-	28,29,30	-
		PM _{2.5}	1.12	0.18	-	28,29,30	-
		H ₂ S	0.03	<0.01	-	28,29,30	-
		Exempt Solvent	0.01	0.04	-	28,29,30	-
ILEMSS (5)	ILE Maintenance Activities	NO _x	0.32	0.70	-	28,29,30	-
		CO	0.18	0.40	-	28,29,30	-

Major NSR Summary Table

Permit Number: 48106/PSDTX1012M2			Issuance Date: October 2, 2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr(16)	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
	Attachment A	VOC	0.13	0.14	-	28,29,30	-
		PM ₁₀	0.03	0.05	-	28,29,30	-
		PM _{2.5}	0.03	0.05	-	28,29,30	-
		NH ₃	0.01	<0.01	-	28,29,30	-

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

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

(3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.

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

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented

PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented

PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

HOCl - hypochlorous acid

H₂S - hydrogen sulfide

H₂SO₄ - sulfuric acid

MSS - maintenance, startup, and shutdown

PHTN - peak high transitory NO_x

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) Hours of operations are limited to 2,750 hours until the requirements of Special Condition No. 12 have been met.

(7) Emissions are based upon 8,200 operating hours per year.

- (8) Emissions are based upon 1,000 operating hours per year.
- (9) Emissions are based upon 4,000 operating hours per year.
- (10) Emissions are based upon 876 operation hours per year.
- (11) This grouping includes the following vents: SH-VNT-1-4 (A-D), SH6-7 (A-D).
- (12) This grouping includes the following vents: SH-VNT-5 (A-C) and SH-VNT-8 (A-B).
- (13) This grouping includes the following tanks: SH-TNK (20-26, 49-50) and SH-CLARIFY.
- (14) This grouping includes the following tanks: SH-TNK (41-44, 51).
- (15) This grouping includes the following tanks: SH-TNK (8-13, 45-48, 52).
- (16) For each pollutant whose emissions are measured during planned MSS activities using a CEMS, only the MSS lb/hr limits apply during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.
- (17) The NO_x MSS emission rate is in effect until start of operation of turbine number 8 (EPN: SH8).
- (18) The NO_x MSS emission rate goes into effect upon start of operation of turbine number 8 (EPN: SH8).



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT



A Permit Is Hereby Issued To
City of Austin
Authorizing the Construction and Operation of
Sand Hill Energy Center
Located at **Del Valle, Travis County, Texas**
Latitude 35° 12' 35" Longitude -97° 36' 47"

Permits: 48106 and PSDTX1012M2

Amendment Date : October 2, 2015

Expiration Date: May 15, 2022

For the Commission

- Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]¹
- Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
- Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
- Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
- Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is

also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]¹
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

¹ Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

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1. This permit covers only those sources of emissions listed in the attached table entitled “Emission Sources – Maximum Allowable Emission Rates (MAERT),” including planned maintenance, startup, and shutdown (MSS) activities, and those sources are limited to the emission limits on that table and other conditions specified in this permit. **(3/15)**

Federal Applicability

2. These facilities shall comply with applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations in the Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60) on Standards of Performance for New Stationary Sources promulgated for:
 - A. Subpart A: General Conditions.
 - B. Subpart Da: Standards of Performance for Electric Utility Steam Generating Units. [Heat Recovery Steam Generators (HRSG) duct burners]
 - C. Subpart GG: Standards of Performance for Stationary Gas Turbines. Gas Turbines [Emission Point Nos. (EPNs)]: SH1 to SH5 are subject to the applicable requirements of. **(9/08)**
 - D. Subpart KKKK: Standards of Performance for Stationary Gas Turbines. Gas Turbines (EPNs: SH6, SH7, and SH8) **(3/15)**

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 and Operating Specifications

3. The permit authorizes the following:
 - A. Seven General Electric LM 6000 Sprint Class Simple Cycle Gas Turbine Generators (EPNs: SH1 to SH4, SH6, SH7, and a spare) units are rated for a nominal electric power output of 48 megawatts (MW) each. **(10/15)**
 - B. A General Electric 7FA Combined Cycle Gas Turbine Generator (EPN: SH5) unit rated for a nominal electrical power output of 164 MW and the HRSG Steam-Driven Turbine Unit (EPN: SH5) is rated at a nominal 157 MW.
 - C. A General Electric 7FA.04 Combined Cycle Gas Turbine Generator (EPN: SH8) unit rated for an electrical power output of 173.9 MW at International Standard of Organization (ISO) conditions equipped with duct burners rated at 681.5 million British thermal units per hour (MMBtu/hr).
4. The permit holder will voluntarily limit emissions of NO_x to a combined total of 1,500 tons per year (tpy) from the Decker Creek Power Plant and the Sand Hill Energy Center. The

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permit holder further agrees to make the 1,500 tpy cap between these two facilities federally enforceable with this permit.

5. The HRSG duct burners (EPNs: SH5 and SH8) are each limited to a maximum heat input capacity of 681.5 million British thermal units per hour (MMBtu/hr) based on the higher heating value of natural gas. **(3/15)**
6. Load Operations
 - A. Normal operation of the combined cycle gas turbine generators is defined as the 6Q stage of combustion at loads greater than or equal of 76 MW of gross electrical output except during MSS periods (as defined in Special Condition No. 19 and Attachments A and B), and reduced load operation (defined in Special Condition No. 6C). **(4/12)**
 - B. Normal operation of the simple cycle gas turbines is defined as operating at loads greater than 11 MW of gross electrical output except during periods of MSS (as defined in Special Condition No. 19 and Attachments A and B), and reduced load operation (as defined in Special Condition No. 6C). **(4/12)**
 - C. Reduced load operation below those specified in A and B of this Special Condition that is not associated with MSS (as defined in Special Conditions Nos. 19 and Attachments A and B) is authorized to accommodate periods of reduced power demand provided the maximum pounds per hour (lbs/hr) emission rates specified in the attached MAERT for EPNs: SH1 through SH8 are not exceeded. **(3/15)**
 - D. MSS operation of the gas turbines is authorized provided that the NO_x and CO emission rates in lbs/hr do not exceed those specified in the MAERT.
7. Fuel for EPNs: SH1 through SH8 and the spare turbine is limited to pipeline-quality natural gas containing no more than 0.23 grain of total sulfur per 100 dry standard cubic feet on an annual average basis. **(10/15)**
8. 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 fuel fired in the gas turbines and duct burners or shall allow air pollution control agency representatives to obtain a sample for analysis.
9. Chromium-based solutions shall not be used in the Cooling Towers (EPNs: CLTWR-1 and SC CTWR-1 to SC CTWR-4). **(4/12)**

Combined Cycle Gas Turbine Emission Standards

10. The concentration of emissions from each turbine shall not exceed the following emission limits expressed in parts per million by volume dry (ppmvd) correct to 15% oxygen (O₂).
(3/15)

EPN	Pollutant	Concentration	Averaging time
SH5	NO _x	5.0	1-hr average
	CO	17.5	1-hr average
	VOC	5.2	1-hr average
	NH ₃	7.0	1-hr average
SH8	NO _x	2.0	24-hr rolling average
	CO	2.0	1-hr average
	VOC	2.0	1-hr average
	NH ₃	7.0	1-hr average

- A. Reduced load emissions as defined in Special Condition No. 6 C are excluded.
- B. Startup and shutdown emissions as defined in Special Condition No. 19 C are excluded.
- C. Excess emissions caused by emission events are excluded.
- D. Emissions from planned maintenance activities (Attachments A and B) are excluded.
- E. The concentration limits specified in this Special Condition do not apply to clock hours during which reduced load operation or MSS activities occur.
- F. If the turbine operates in MSS mode during any part of a clock hour, the only applicable emission limit for that hour is the MSS pounds per hour (lb/hr) limit specified in the MAERT.

Simple Cycle Gas Turbine Emission Standards

11. The operation of each Simple Cycle Gas Turbine (EPNs: SH1 to SH4, SH6, SH7, and the spare) shall not exceed 2,750 hours of operation per year (hr/yr) until:
- A. A CO catalyst unit has been installed on the simple cycle turbine.
 - B. The simple cycle turbine has demonstrated compliance with emission standard specified in Special Condition No. 12B(2), using the sampling methods as specified in Special Condition No. 21. **(9/08)**
 - C. When both Special Condition No. 11A and B have been met, the simple cycle turbines will be authorized for 8,760 hours of operation per year.
 - D. Only six turbines shall operate at a time and the sum total of operations without the CO catalyst for all seven turbines combined shall not exceed 16,500 hr/yr. **(10/15)**

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12. The emission limits for the Simple Cycle Gas Turbines (EPNs: SH1 to SH4, SH6, SH7, and the spare), except for periods of reduced load operation (Special Condition No. 6C), MSS periods (as defined in Special Condition No. 19 and Attachments A and B) are as follows:
(10/15)
- A. Emissions of NO_x shall not exceed 5.0 parts ppmvd corrected to 15 percent O₂ based on a one-hour average without correction to ISO conditions.
 - B. Emissions of CO shall not exceed the following:
 - (1) 43.0 ppmvd at 15 percent O₂ based on a one hour average while the units are limited to 2,750 hours of operation per year as specified in Special Condition No. 11.
 - (2) 9.0 ppmvd at 15 percent O₂ based on a one-hour average after the units have been authorized for 8,760 hours of operation per year as specified in Special Condition No. 11.
 - C. Emissions of VOC, defined as total hydrocarbons minus methane and ethane, for the simple cycle turbines are as follows:
 - (1) EPNs: SH1 to SH4 shall not exceed 8.0 ppmvd at 15 percent O₂ based on a one-hour average.
 - (2) EPNs: SH6 and SH7
 - (a) 6.8 ppmvd at 15 percent O₂ based on a one-hour average while the units are limited to 2,750 hours of operation per year as specified in Special Condition No. 11.
 - (b) 2.0 ppmvd at 15 percent O₂ based on a one-hour average when hours of operations exceed 2,750 hours as specified in Special Condition No. 11.
 - D. Emissions of NH₃ shall not exceed 7 ppmvd at 15 percent O₂ based on a one hour average.
 - E. The concentration limits specified in Special Conditions Nos. 12A through 12D do not apply to clock hours during which reduced load operation or MSS activities occur.
(4/12)
 - F. If the turbine operates in MSS mode during any part of a clock hour, the only applicable emission limit for that hour is the MSS lb/hr limit specified in the MAERT. **(4/12)**
13. Selective catalytic reduction (SCR) units will be installed and operated to meet the NO_x emission limits specified in Special Condition Nos. 10A and 12A.
14. Opacity
- A. During normal operations, opacity of emissions from each gas turbine combustion stack authorized by this permit shall not exceed 5 percent averaged over a six-minute

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period. During periods of MSS operation of the turbines, the opacity shall not exceed 15 percent averaged over a six minute period.

- B. Opacity of emissions from EPNs: SC-VNTS and CC-VNTS (Attachment C) shall not exceed 20 percent as required by Title 30 Texas Administrative Code (30 TAC) §111.111(a)(1)(B), except for those periods described in 30 TAC § 111.111(a)(1)(E).
 - C. The permit holder shall demonstrate compliance with this Special Condition in accordance with the following procedures:
 - (1) Visible emission observations shall be conducted and recorded at least once during each calendar quarter while the facilities are in operation, unless the emission unit is not operating for the entire calendar quarter.
 - (2) These observations shall be made by first 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 the emission point(s). Up to three emissions points may be read concurrently, provided that all three emissions points are within a 70 degree viewing sector or angle in front of the observer such that the proper sun position (at the observer's back) can be maintained for all three emission points. A certified opacity reader is not required for these visible emission observations.
 - (3) 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.
 - (4) If no visible emissions are present during the observations conducted as specified in Special Condition Nos. 14C(1) through 14C(3), then compliance with the opacity limit will have been demonstrated.
 - (5) If visible emissions are present, the permit holder shall perform one of the following within 24 hours:
 - (a) Assume that a exceedance of the applicable opacity limit specified in Special Condition No. 14A or 14B has occurred, or;
 - (b) Conduct and record an opacity observation as determined by Title 40, Code of Federal Regulations (40 CFR) Part 60, Appendix A, Reference Method (RM) 9 to determine if an exceedance of the opacity limit of Special Condition No. 14A or 14B has occurred.
 - (6) If an exceedance has occurred, take corrective action within 48 hours. Record the exceedance as an emissions event as specified in 30 TAC, Chapter 101.
15. The service of NH₃ storage tanks represented in this permit is limited to the storage of aqueous NH₃ only.

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16. Emissions from the ammonia storage tanks shall be minimized by use of a vapor-balance system to route vapors displaced from the tanks back to the truck during filling operations.
17. Audio, visual, and olfactory (AVO) checks for NH₃ and water treatment chemicals shall be made once per shift within the operating area. No later than one hour following detection of a leak, plant personnel shall take the following actions:
 - A. Locate and isolate the leak.
 - B. Commence repair or replacement of the leaking component as appropriate.
 - C. Use a leak collection/containment system to control the leak until repair or replacement can be made.
18. The testing of the Emergency Diesel Generator shall be limited to one hour per day.

Maintenance, Start-up, and Shutdown Emissions

19. The emissions from maintenance, start-up, and shutdown (MSS) activities are reflected in the MAERT. The emissions will be minimized by the following:
 - A. Facility and air pollution control equipment will be operated in a manner consistent with good air pollution control, safe operating practices, and protection of the facility. **(4/12)**
 - B. The duration of operation in a MSS mode will be minimized and the applicable emissions monitoring systems will be kept in operation. **(4/12)**
 - C. Combined Cycle Gas Turbines (EPN: SH5 and SH8) **(3/15)**
 - (1) Startup of the unit is defined as the period that begins when fuel flow is first detected and ends when the load on the gas turbine reaches 76 MW of gross electrical output plus 15 minutes.
 - (a) A startup event shall not exceed 7 hours after fuel flow has been detected, except as allowed in Special Condition No. 19C(1)b.
 - (b) An extended startup is defined as a start-up that is greater than 7 hours after fuel flow has been detected. Three extended starts are authorized per calendar year and shall not exceed 16 hours per event.
 - (c) A Peak High Transitory NO_x (PHTN) emission rate occurs infrequently during the turbine startup/shutdown (SS) sequence and applies only to EPN: SH8. The PHTN shall not occur more than once per SS event and shall not exceed 100 hours per year provided that the applicable emission rate in the MAERT is met.
 - (2) Shutdown of the unit is defined as the period beginning when the unit exits the "6Q" operating mode and the load on the gas turbine drops below 52 MW of gross electrical output and ends when fuel is no longer fed to the unit. A shutdown shall not exceed 120 minutes per event.

- D. Simple Cycle Gas Turbines (EPNs: SH1 to SH4, SH6, SH7, and the spare) **(10/15)**
- (1) Startup of a unit is defined as the period that begins when fuel flow is first detected and ends when unit's corrected stack NO_x ppmvd concentration at 15% O₂ drops below 5 ppmvd and remains there for 5 minutes.
 - (a) A startup event shall not exceed 120 minutes after fuel flow has been detected, except as allowed in Special Condition No. 19D(1)b.
 - (b) An extended start-up is defined as a start-up that is greater than 120 minutes after fuel flow has been detected. Two extended starts are authorized per calendar year per unit and shall not exceed 3 hours per event.
 - (2) Shutdown of a unit is defined as the period when the load on the unit drops below 11 MW of gross electrical output and ends when fuel is no longer fed to the unit. A shutdown shall not exceed 120 minutes per event.

Initial Determination of Compliance

20. 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. **(9/08)**
21. 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: SH1 to SH8. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with the appropriate EPA RMs 201A and 202 or RM 5, modified to include back-half condensables, for the concentration of PM₁₀; RM 8 or RM 6 or 6c for sulfur dioxide (SO₂); RM 9 for opacity (consisting of 30 six-minute readings as provided in 40 CFR § 60.11[b]); RM 10 for the concentration of CO, RM 25A, modified to exclude methane and ethane, for the concentration of VOC (to measure total carbon as propane); and RM 20 for the concentrations of NO_x and O₂ or equivalent methods. **(3/15)**

Fuel sampling using the methods and procedures of 40 CFR Part 60, Subpart GG may be conducted in lieu of stack sampling for SO₂ (for turbines EPNs: SH1 to SH5). If fuel sampling is used, compliance with New Source Performance Standards (NSPS), Subpart GG, SO₂ limits shall be based on 100 percent conversion of the sulfur in the fuel to SO₂. Any deviations from those procedures must be approved by the Executive Director of the TCEQ prior to sampling. The TCEQ Executive Director or a designated representative shall be afforded the opportunity to observe all such sampling. **(9/08)**

Fuel sampling (for gas turbines EPNs: SH6, SH7, and SH8) using methods and procedures of 40 CFR Part 60, Subpart KKKK may be conducted in lieu of stack sampling for SO₂ or the permit holder may be exempted from fuel monitoring of SO₂ as provided under 40 CFR § 60.4365(a). If fuel sampling is used, compliance with NSPS, Subpart KKKK, SO₂

limits shall be based on 100 percent conversion of the sulfur in the fuel to SO₂. Any deviations from those procedures must be approved by the Executive Director of the TCEQ prior to sampling. The TCEQ Executive Director or a designated representative shall be afforded the opportunity to observe all such sampling. **(3/15)**

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

- A. The TCEQ Austin Regional Office shall be contacted as soon as testing is scheduled but not less than 30 days prior to sampling to schedule a pretest meeting. The notice shall include:
- (1) Date for pretest meeting.
 - (2) Date sampling will occur.
 - (3) Name of firm conducting sampling.
 - (4) Type of sampling equipment to be used.
 - (5) Method or procedure to be used in sampling.
 - (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 the 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 or equivalent procedure proposals for NSPS testing which must have the EPA approval shall be submitted to the TCEQ Regional Office.

- B. Air contaminants and diluents to be sampled and analyzed include (but are not limited to) NO_x, CO, VOC, SO₂, PM₁₀, NH₃, opacity, and O₂. (As noted above, fuel sampling using the methods and procedures of 40 CFR Part 60, Subparts GG and KKKK may be conducted in lieu of stack sampling for SO₂). The PM₁₀ from EPN: SH 5 shall be tested at one point in the permitted operating range while the gas turbine is operating as close to base load as possible and while the duct burners are operating at their maximum firing rate.
- C. Each gas turbine shall be tested at a minimum (VOC only) and maximum load of the permitted operating range that is defined in Special Condition No. 6 for the atmospheric conditions which exist during testing. The duct burners shall be tested at its maximum firing rate while the turbine is operating as close to base load as possible. Each tested turbine load shall be identified in the sampling report. The permit holder shall present at the pretest meeting the manner in which stack

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sampling will be executed in order to demonstrate compliance with emission standards found in NSPS, Subparts Da, GG and KKKK. **(05/08)**

- D. Sampling as required by this condition shall occur within 60 days after achieving the maximum fuel-firing rate at which the gas turbines and duct burners will be operated but no later than 180 days after initial start-up of the unit. Additional sampling shall occur as may be required by the TCEQ or the EPA. **(9/08)**
- E. The City of Austin (d.b.a. Austin Energy), may furnish previous testing results for the simple cycle gas turbines that satisfy any of the requirements of this special condition in lieu of actual testing as long as the previous testing results demonstrate compliance. **(9/08)**
- F. Within 60 days after the completion of the testing and sampling required herein, two copies of the sampling reports, including any sampling reports as described in Special Condition:
 - (1) One copy to the EPA Region 6 Office, Dallas.
 - (2) One copy to the TCEQ Austin Regional Office.
- G. The initial emission testing requirement of this condition was completed on the following dates: **(4/12)**
 - (1) June 2001: SH1, SH2, and SH3
 - (2) August 2001: SH4
 - (3) January 2005: SH5
 - (4) August 2010: SH7
 - (5) October 2010: SH6

Continuous Determinations of Compliance

- 22. The holder of this permit shall install, calibrate, maintain, and operate a Continuous Emissions Monitoring System (CEMS) to measure and record the concentrations of NO_x from each gas turbine (EPNs: SH1 through SH8), CO from (EPNs: SH5 and SH8 only), and diluent gases [O₂ or carbon dioxide (CO₂)], from each gas turbine Exhaust Stack (EPNs: SH1 through SH8).
 - 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 § 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division in Austin for requirements to be met. The CEMS shall comply with the following requirements:

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

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acceptable alternative such as the quality-assurance procedures outlined in 40 CFR Part 75, Appendix B for NO_x and O₂. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, § 5.2.3 and any CEMS downtime and all cylinder gas audit exceedances of ±15 percent accuracy shall be reported quarterly to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken. For the CO CEMS, cylinder gas audits may be conducted in all four calendar quarters in lieu of annual Relative Accuracy Test Audit. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director. **(4/12)**

- B. The monitoring data shall be reduced to hourly average values at least once every day, using a minimum of four equally-spaced data points from each one-hour period. At least two valid data points shall be generated during the hourly period in which zero and span is performed.
 - 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 a designated representative upon request. The hourly average data from the CEMS may be used to determine compliance with the conditions of this permit. Hourly average concentrations from EPNs: SH1 to SH8 shall be summed to tons per year and used to determine compliance with the emission limits of this permit. **(3/15)**
 - D. The appropriate TCEQ Regional Office shall be notified at least 21 days prior to any required relative accuracy test audit in order to provide them the opportunity to observe the testing.
 - E. The CEMS for the turbines/duct burner stacks are 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.
23. If any emission monitor fails to meet specified performance, it shall be repaired or replaced as soon as reasonably possible. The replacement procedure should start immediately and any replacement parts should be installed within 30 days (any extension or deviation requires approval from the TCEQ Austin Regional Office). **(9/08)**
24. The holder of this permit shall additionally install, calibrate, maintain, and operate continuous monitoring systems to monitor and record the average hourly natural gas consumption of the gas turbines and the duct burner. The systems shall be accurate to ± 5.0 percent of the unit's maximum flow and the City of Austin (d.b.a. Austin Energy) shall provide documentation to verify this accuracy. **(9/08)**
25. The holder of this permit shall either measure or develop a program to calculate the total mass flow rate through the HRSG stack to ensure continuous compliance with the emission limitations specified in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates." The permit holder shall calculate hourly mass emissions in lbs/hr using the measured or calculated exhaust flow rate and the measured concentrations of NO_x and CO from the CEMS required in Special Condition No. 22. The hourly calculated values will be cumulatively added during each hour of the month and

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stored on a computer hard drive and on computer disk or other TCEQ-accepted computer media. Records of this information shall also be available in a form suitable for inspection. **(9/08)**

26. The NH₃ concentration in each gas turbine exhaust stack (EPNs: SH1 through SH8, and the spare turbine) shall be monitored as per subparagraph A below for all periods when Units 1 through 8 are in operation. **(10/15)**
 - A. The holder of this permit shall install and operate a dual stream system of NO_x CEMS at the exit of the SCR. One of the exhaust streams would be routed, in an unconverted state, to one NO_x CEMS and the other exhaust stream would be routed through an NH₃ converter to convert NH₃ to NO_x and then to a second NO_x CEMS. The NH₃ slip concentration shall be calculated from the delta between the two NO_x CEMS readings (converted and unconverted). These results shall be recorded and used to determine compliance with Special Conditions Nos.10D and 12D. **(9/08)**
 - B. Any other method used for measuring NH₃ slip shall require prior approval from the TCEQ Regional Director. **(9/08)**

MSS Compliance (4/12)

27. Emissions from planned MSS activities authorized by this permit shall be determined by the use of an appropriate method, including but not limited to any of following methods:
 - A. Use of a CEMS. The CEMS shall be certified to measure the pollutant's emission over the entire range of a planned maintenance activity.
 - B. Use of emission factors including but not limited to, facility-specific parameters, manufacturer's emission factors, and/or engineering knowledge of the facility's operations.
 - C. Use of emissions data measured (by a CEMS or during emissions testing) during the same type of planned MSS activity occurring at or on an identical or similar facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.
 - D. Use of emissions testing data collected during a planned maintenance activity occurring at or on the facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.
28. Compliance with the emissions limits for planned maintenance activities identified in this permit shall be demonstrated as follows.
 - A. Inherently Low Emitting (ILE)s (Attachment A)
 - (1) The total emissions from all ILE planned maintenance activities shall be considered to be no more than the estimated potential to emit for those

activities that are represented in the permit amendment application dated December 21, 2010 and subsequent associated submittals.

- (2) The permit holder shall annually confirm the continued validity of the estimated potential to emit as represented in the permit amendment application dated December 21, 2010 and subsequent associated submittals.
- B. For each pollutant emitted during non-ILE planned maintenance activities (Attachment B), the permit holder shall do the following for each calendar month.
- (1) Determine the total emissions of the pollutant that result from such non-ILE planned maintenance activities in accordance with the methods listed in Special Condition No. 27.
 - (2) Compare the pollutant's short-term (hourly) emissions during planned maintenance activities, as determined using one of the methods listed in Special Condition No. 27, to the applicable short-term planned MSS emissions limit in the MAERT.
 - (3) Once the pollutant's emissions during planned maintenance activities have been measured for 12 months after the MSS permit amendment is issued, compare the rolling 12-month emissions of the pollutant, as determined using the monthly emission totals, to the applicable annual planned MSS emissions limit in the MAERT.

Recordkeeping Requirements

29. The following records shall be kept at the Austin Energy corporate headquarters located at 721 Barton Springs Road, Austin, Texas, for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ, EPA, or any air pollution control agency with jurisdiction.
 - A. A copy of this permit.
 - B. Permit application dated November 28, 2007, and subsequent representations.
 - C. A complete copy of the testing reports and records of the initial performance testing completed pursuant to Special Condition No. 21 to demonstrate initial compliance. **(9/08)**
 - D. Stack sampling results or other air emissions testing (other than CEMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.
30. 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 made immediately available upon request to representatives of the TCEQ, the EPA, or any local air pollution control program having jurisdiction:

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- A. The CEMS data of NO_x (EPNs: SH1 through SH8), CO (EPN: SH5 and SH8 only), and O₂ emissions (EPNs: SH1 through SH8) to demonstrate compliance with the emission rates listed in the Special Condition Nos. 10, 12 A, 12B, and the MAERT. **(3/15)**
 - B. Raw data files of all CEMS data including calibration checks and adjustments and maintenance performed on these systems in a permanent form suitable for inspection.
 - C. Records of the hours of operation for each turbine. The total hours of operation for the simple cycle turbines to demonstrate compliance with Special Condition No. 11D. The serial number shall be used to track the hours of operation for the spare turbine. **(10/15)**
 - D. Records of the average daily quantity of natural gas fired in the gas turbines and duct burners.
 - E. Records of NH₃ (differential NO_x analyzer) quality assurance checks. **(9/08)**
 - F. Records of fuel sampling conducted pursuant to 40 CFR Part 60, Subpart GG for units EPNs: SH1 to SH5.
 - G. Records of fuel sampling conducted pursuant to 40 CFR § 60.4415 or a valid purchase contract pursuant to 40 CFR § 60.4365(a) for EPNs: SH6, SH7, and SH8. **(3/15)**
 - H. Startup/shutdown records for all turbines pursuant to Special Condition No. 19C and Special Condition No. 19D shall include the following: **(4/12)**
 - (1) Type and quantity of fuel used.
 - (2) Emissions from the event.
 - (3) Date, time and duration of the event.
 - I. Records of the maintenance activities listed on Attachments A and B. **(4/12)**
 - J. Pursuant to Special Condition No. 28A, the annual confirmation shall be kept with examples of the method of data reduction including units, conversion factors, assumptions, and the basis of the assumptions as represented in the application dated December 21, 2010 and subsequent associated submittals. **(4/12)**
31. With the exceptions of the emission limits in the MAERT attached to this permit, the permit conditions relating to planned MSS activities do not become effective unit 180 days after issuance of this permit amendment dated April 20, 2012. **(4/12)**

Date: October 2, 2015

Permit Numbers: 48106 and PSDTX1012M2

Attachment A

Inherently Low Emitting Sources (EPN: ILEMSS)					
Activities	Emissions				
	NO _x	CO	VOC	PM	NH ₃
Catalyst handling and maintenance ¹				X	
Management of sludge pits, ponds, sumps, and water conveyances ²			X		
CEMS and Analytical Equipment Repair/ Maintenance/Calibration	X	X	X		
Miscellaneous Brazing, Soldering and Welding	X	X	X	X	
Parts Cleaner			X		
Aqueous ammonia injection system					X

Date: August 6, 2012

¹ Includes, but is not limited to replacement, cleaning, activation, and deactivation of SCR and oxidation catalyst.

² Includes, but is not limited to management by vacuum truck/dewatering of material in open pits, ponds, sumps, tanks, and other closed or open vessels. Material managed includes water/sludge materials containing miscellaneous VOCs such as diesel, lube oil, and other waste materials.

Permit Numbers: 48106 and PSDTX1012M2

Attachment B

Non-Inherently Low Emitting Sources (non-ILEs)							
Activity	EPN	Emissions					
		NO _x	CO	VOC	PM	SO ₂ / H ₂ S	Exempt Solvent
Turbine washing - online ³	SH5 SH8				X		
Combustion Optimization ⁴	SH1 thru SH8	X	X	X	X	X	
Painting ⁵	MSSFUG			X	X		X
Gaseous Fuel Venting ⁶	MSSFUG			X		X	
Outdoor/unenclosed dry abrasive blasting	MSSFUG				X		

Date: March 20, 2015

³ This process involves the use of water only.

⁴ Includes, but is not limited to the following: (a) leak and operability checks (*e.g.* turbine over-speed test, trouble shooting). (b) Balancing. (c) Tuning activities that occur during seasonal tuning or after initial construction, a combustor change out, a major repair/maintenance to a combustor, or other similar circumstances.

⁵ Includes, but is not limited to the application of adhesives and rubber linings.

⁶ Includes, but is not limited to venting associated with pipeline pigging and meter proving

Permit Numbers: 48016 and PSDTX1012M2

Attachment C

This permit authorizes maintenance emissions from the following groups. The headings for each group of facilities are used on the MAERT to identify all facilities in the respective group.

EPN: SC-VNTS		
Description	Vents	FIN
Simple Cycle Turbines Oil Circulating System Vents	Generator Lube Oil	SH-VNT-1A thru 4A SH-VNT-6A thru 7A
	Bearing Lube Oil Sump	SH-VNT-1B thru 4B SH-VNT-6B thru 7B
	Lube Oil Reservoir	SH-VNT-1C thru 4C SH-VNT-6C thru 7C
	Hydraulic Oil Starter	SH-VNT-1D thru 4D SH-VNT-6D thru 7D

EPN: CC-VNTS		
Description	Vents	FIN
Combined Cycle Turbine Oil Circulating System Vents	Hydraulic Oil/Lube	SH-VNT-5A SH-VNT-8A
	Generator Seal Oil	SH-VNT-5B SH-VNT-8B
	Lube Oil	SH-VNT-5C

Permit Numbers: 48016 and PSDTX1012M2

Attachment C

EPN: WTTNKS	
Description	FIN
Nalco 7408 (PC-11)	SH-TNK20
Nalco 71-D5	SH-TNK21
Nalco 73551	SH-TNK22
Nalco Core Shell 71301	SH-TNK23
Nalco Optimer 7199 Flocculant	SH-TNK24
Nalco Naclear 7768 Flocculant	SH-TNK25
Nalco Trascar 105	SH-TNK26
Nalco H550	SH-TNK49
Sulfuric Acid	SH-TNK50
Clarifier ⁷	SH-CLARIFY

EPN: OILRES	
Description	FIN
Circulating Water Pump Lube Oil Reservoir	SH-TNK41
	SH-TNK42
	SH-TNK43
Unit 5 Gas Compressor Oil Reservoir	SH-TNK44
Unit 8 Gas Compressor Oil Reservoir	SH-TNK51

EPN: WASHTNKS	
Description	FIN
Underground Wash Water Tanks	SH-TNK8 thru SH-TNK13
Oil-Water Separator Tank (for units 1 thru 4) for Spent Wash Water	SH-TNK45
Oil-Water Separator Tank (units 6 thru 7) for Spent Wash Water	SH-TNK46
Underground Wash Water Tank (for unit 5)	SH-TNK47
Oil-Water Separator Tank	SH-TNK48
Underground Wash Water Tank (for unit 8)	SH-TNK52

Date: March 20, 2015

⁷ Emission from management of South Austin Regional (SAR) Wastestream.

Emission Sources - Maximum Allowable Emission Rates

Permit Number 48106 and PSDTX1012M2

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, sources, and related activities. 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	
			lbs/hour (16)	TPY (4)
SH1 (6)	GE LM 6000 (~ 50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	44.2	60.8
		CO (MSS)	923.0	-
		VOC	4.1	5.6
		VOC (MSS)	17.6	-
		PM	4.0	5.5
		PM ₁₀	4.0	5.5
		SO ₂	0.3	0.5
		NH ₃	4.5	6.1
SH1	GE LM 6000 (~ 50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	9.5	41.4
		CO (MSS)	923.0	-
		VOC	1.2	5.3
		VOC (MSS)	17.6	-
		PM	4.0	17.5
		PM ₁₀	4.0	17.5
		SO ₂	0.3	1.5
		NH ₃	4.5	19.6

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
SH2 (6)	GE LM 6000 (~ 50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	44.2	60.8
		CO (MSS)	923.0	-
		VOC	4.1	5.6
		VOC (MSS)	17.6	-
		PM	4.0	5.5
		PM ₁₀	4.0	5.5
		SO ₂	0.3	0.5
		NH ₃	4.5	6.1
SH2	GE LM 6000 (~ 50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	9.5	41.4
		CO (MSS)	923.0	-
		VOC	1.2	5.3
		VOC (MSS)	17.6	-
		PM	4.0	17.5
		PM ₁₀	4.0	17.5
		SO ₂	0.3	1.5
		NH ₃	4.5	19.6

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
SH3 (6)	GE LM 6000 (~ 50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	44.2	60.8
		CO (MSS)	923.0	-
		VOC	4.1	5.6
		VOC (MSS)	17.6	-
		PM	4.0	5.5
		PM ₁₀	4.0	5.5
		SO ₂	0.3	0.5
		NH ₃	4.5	6.1
SH3	GE LM 6000 (~ 50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	9.5	41.4
		CO (MSS)	923.0	-
		VOC	1.2	5.3
		VOC (MSS)	17.6	-
		PM	4.0	17.5
		PM ₁₀	4.0	17.5
		SO ₂	0.3	1.5
		NH ₃	4.5	19.6

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
SH4 (6)	GE LM 6000 (~ 50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	44.2	60.8
		CO (MSS)	923.0	-
		VOC	4.1	5.6
		VOC (MSS)	17.6	-
		PM	4.0	5.5
		PM ₁₀	4.0	5.5
		SO ₂	0.3	0.5
		NH ₃	4.5	6.1
SH4	GE LM 6000 (~ 50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	9.5	41.4
		CO (MSS)	923.0	-
		VOC	1.2	5.3
		VOC (MSS)	17.6	-
		PM	4.0	17.5
		PM ₁₀	4.0	17.5
		SO ₂	0.3	1.5
		NH ₃	4.5	19.6

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
SH5 (7)	GE 7FA (~ 164 MW) HRSG (~ 681 MMBtu-hr) Combined Cycle	NO _x	46.7	191.4
		NO _x (MSS)	247.0	-
		CO	98.4	403.3
		CO (MSS)	2,200.0	-
		VOC	16.4	67.4
		VOC (MSS)	150.0	-
		PM	32.8	134.5
		PM ₁₀	32.8	134.5
		SO ₂	1.6	7.3
		NH ₃	24.2	99.0

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
SH6 (6)	GE LM 6000 (~ 50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	44.2	60.8
		CO (MSS)	923.0	-
		VOC	4.1	5.6
		VOC (MSS)	17.6	-
		PM	4.0	5.5
		PM ₁₀	4.0	5.5
		SO ₂	0.3	0.5
		NH ₃	4.5	6.1
SH6	GE LM 6000 (~ 50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	9.5	41.4
		CO (MSS)	923.0	-
		VOC	1.2	5.3
		VOC (MSS)	17.6	-
		PM	4.0	17.5
		PM ₁₀	4.0	17.5
		SO ₂	0.3	1.5
		NH ₃	4.5	19.6

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
SH7 (6)	GE LM 6000 (~ 50 MW) Simple Cycle (≤ 2,750 hrs/yr)	NO _x	8.6	11.9
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	44.2	60.8
		CO (MSS)	923.0	-
		VOC	4.1	5.6
		VOC (MSS)	17.6	-
		PM	4.0	5.5
		PM ₁₀	4.0	5.5
		SO ₂	0.3	0.5
		NH ₃	4.5	6.1
SH7	GE LM 6000 (~ 50 MW) Simple Cycle (with CO catalyst)	NO _x	8.6	37.8
		NO _x (MSS) (17)	203.7	-
		NO _x (MSS) (18)	100.0	-
		CO	9.5	41.4
		CO (MSS)	923.0	-
		VOC	1.2	5.3
		VOC (MSS)	17.6	-
		PM	4.0	17.5
		PM ₁₀	4.0	17.5
		SO ₂	0.3	1.5
		NH ₃	4.5	19.6

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
SH8 (7)	GE 7FA (~ 173.9 MW) HRSG (~ 681 MMBtu-hr) Combined Cycle	NO _x	21.0	120.7
		NO _x (MSS)	70.0	-
		NO _x (PHTN)	140.0	-
		CO	14.7	621.9
		CO (MSS)	1,100.0	-
		VOC	6.7	69.5
		VOC (MSS)	85.5	-
		PM	18.4	80.8
		PM ₁₀	18.4	80.8
		PM _{2.5}	18.4	80.8
		SO ₂	1.7	7.3
		H ₂ SO ₄	1.0	4.5
		NH ₃	26.0	134.1
NH ₃ (MSS)	65.0	-		
HTR-01 (8)	Inlet Air Heaters	NO _x	0.49	0.25
		CO	0.41	0.21
		VOC	0.03	0.01
		PM	0.04	0.02
		PM ₁₀	0.04	0.02
		SO ₂	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
HTR-02 (8)	Inlet Air Heaters	NO _x	0.49	0.25
		CO	0.41	0.21
		VOC	0.03	0.01
		PM	0.04	0.02
		PM ₁₀	0.04	0.02
		SO ₂	<0.01	<0.01
HTR-03 (8)	Inlet Air Heaters	NO _x	0.49	0.25
		CO	0.41	0.21
		VOC	0.03	0.01
		PM	0.04	0.02
		PM ₁₀	0.04	0.02
		SO ₂	<0.01	<0.01
SC CTWR-1 (9)	Simple Cycle Cooling Tower 1	VOC	2.20	0.05
		PM	0.21	0.42
		PM ₁₀	0.14	0.29
		PM _{2.5}	<0.01	<0.01
		H ₂ SO ₄	<0.01	<0.01
		HOCl	0.02	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
SC CTWR-2 (9)	Simple Cycle Cooling Tower 2	VOC	2.20	0.05
		PM	0.21	0.42
		PM ₁₀	0.14	0.29
		PM _{2.5}	<0.01	<0.01
		H ₂ SO ₄	<0.01	<0.01
		HOCl	0.02	<0.01
SC CTWR-3 (9)	Simple Cycle Cooling Tower 3	VOC	2.20	0.05
		PM	0.21	0.42
		PM ₁₀	0.14	0.29
		PM _{2.5}	<0.01	<0.01
		H ₂ SO ₄	<0.01	<0.01
		HOCl	0.02	<0.01
SC CTWR-4 (9)	Simple Cycle Cooling Tower 4	VOC	1.85	0.04
		PM	0.03	0.06
		PM ₁₀	0.02	0.04
		PM _{2.5}	<0.01	<0.01
		H ₂ SO ₄	<0.01	<0.01
		HOCl	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
CLTWR-1	Cooling Tower 1 (combined cycle)	VOC	0.80	1.54
		PM	2.74	12.0
		PM ₁₀	0.84	3.69
		PM _{2.5}	0.01	0.02
		H ₂ SO ₄	<0.01	<0.01
		HOCl	0.53	0.11
SC PB FUG (5)	Simple Cycle Power Block Fugitives	VOC	0.01	0.06
		H ₂ S	<0.01	<0.01
SC MS FUG (5)	Simple Cycle Natural Gas Meter Skid	VOC	0.05	0.21
		H ₂ S	<0.01	<0.01
CC PB FUG (5)	Combined Cycle Power Block Fugitives	VOC	0.04	0.14
		H ₂ S	<0.01	<0.01
CC MS FUG (5)	Combined Cycle Natural Gas Meter Skid	VOC	0.10	0.44
		H ₂ S	<0.01	<0.01
SC AMFUG (5)	Simple Cycle Ammonia Fugitives	NH ₃	0.25	1.1
CC AMFUG (5)	Combined Cycle Ammonia Fugitives	NH ₃	0.06	0.23
TANK 5-4	Oil/Water Separator	VOC	0.05	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
EDG (10)	Emergency Diesel Generator Twin Pack	NO _x	7.3	3.2
		CO	1.4	0.6
		VOC	0.37	0.14
		PM	0.2	0.1
		PM ₁₀	0.2	0.1
		SO ₂	<0.01	<0.01
SC-VNTS (11)	Simple Cycle Oil Vents	PM ₁₀	0.14	0.62
		VOC	0.28	1.24
CC-VNTS (12)	Combined Cycle Oil Vents	PM ₁₀	0.04	0.15
		PM _{2.5}	0.04	0.15
		VOC	0.07	0.30
WTTNKS (13)	Water Treatment Chemical Storage Tanks	VOC	8.68	1.28
		H ₂ SO ₄	0.02	<0.01
OILRES (14)	Circulating Water Pump/Gas Compressor Lube Oil Reservoir	VOC	<0.01	<0.01
WASHTNKS (15)	Underground Wash Water Tanks	VOC	0.48	0.05
MSSFUG (5)	Non-ILE Maintenance Activities Attachment B	VOC	90.22	3.97
		PM ₁₀	1.12	0.18
		PM _{2.5}	0.17	0.03
		H ₂ S	0.03	<0.01
		Exempt Solvent	0.01	0.04

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (16)	TPY (4)
ILEMSS (5)	ILE Maintenance Activities Attachment A	NO _x	0.32	0.70
		CO	0.18	0.40
		VOC	0.13	0.14
		PM ₁₀	0.03	0.05
		PM _{2.5}	0.03	0.05
		NH ₃	0.01	<0.01

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
 - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 - CO - carbon monoxide
 - HOCl - hypochlorous acid
 - H₂S - hydrogen sulfide
 - H₂SO₄ - sulfuric acid
 - MSS - maintenance, startup, and shutdown
 - PHTN - peak high transitory NO_x
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Hours of operations are limited to 2,750 hours until the requirements of Special Condition No. 12 have been met.
- (7) Emissions are based upon 8,200 operating hours per year.
- (8) Emissions are based upon 1,000 operating hours per year.
- (9) Emissions are based upon 4,000 operating hours per year.
- (10) Emissions are based upon 876 operation hours per year.
- (11) This grouping includes the following vents: SH-VNT-1-4 (A-D), SH6-7 (A-D).
- (12) This grouping includes the following vents: SH-VNT-5 (A-C) and SH-VNT-8 (A-B).
- (13) This grouping includes the following tanks: SH-TNK (20-26, 49-50) and SH-CLARIFY.
- (14) This grouping includes the following tanks: SH-TNK (41-44, 51).

Emission Sources - Maximum Allowable Emission Rates

- (15) This grouping includes the following tanks: SH-TNK (8-13, 45-48, 52).
- (16) For each pollutant whose emissions are measured during planned MSS activities using a CEMS, only the MSS lb/hr limits apply during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.
- (17) The NO_x MSS emission rate is in effect until start of operation of turbine number 8 (EPN: SH8).
- (18) The NO_x MSS emission rate goes into effect upon start of operation of turbine number 8 (EPN: SH8).

Date: March 20, 2015