

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

Air Liquide Large Industries U.S. LP
AUTHORIZING THE OPERATION OF
Air Liquide Bayou Cogeneration Plant
Industrial Gases
LOCATED AT

Harris County, Texas

Latitude 29° 7' 34" Longitude 95° 2' 47"

Regulated Entity Number: RN100233998

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 and emission units listed in this permit. Operations of the site and emission units 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 and emission units 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 and emission units.

Permit No: O1735 Issuance Date: _____

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, Subparts ZZZZ and DDDDD as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.1090 and § 113.1130 respectively which incorporate the 40 CFR Part 63 Subpart by reference.
- F. For the purpose of generating emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 1 (Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
 - (i) Title 30 TAC § 101.302 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.303 (relating to Emission Reduction Credit Generation Certification)
 - (iii) Title 30 TAC § 101.304 (relating to Mobile Emission Reduction Credit Generation and Certification)
 - (iv) Title 30 TAC § 101.305 (relating to Emission Reductions Achieved Outside the United States)
 - (v) Title 30 TAC § 101.309 (relating to Emission Credit Banking and Trading)
 - (vi) The terms and conditions by which the emission limits are established to generate the reduction credit are applicable requirements of this permit
- G. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 3 (Mass Emission Cap and Trade Program) Requirements:
 - (i) Title 30 TAC § 101.352 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.353 (relating to Allocation of Allowances)
 - (iii) Title 30 TAC § 101.354 (relating to Allowance Deductions)

- (iv) Title 30 TAC § 101.356 (relating to Allowance Banking and Trading)
 - (v) Title 30 TAC § 101.358 (relating to Emission Monitoring and Compliance Demonstration)
 - (vi) Title 30 TAC § 101.359 (relating to Reporting)
 - (vii) Title 30 TAC § 101.360 (relating to Level of Activity Certification)
 - (viii) The terms and conditions by which the emission limits are established to meet or exceed the cap are applicable requirements of this permit
- H. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
- (i) Title 30 TAC § 101.372 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.373 (relating to Discrete Emission Reduction Credit Generation and Certification)
 - (iii) Title 30 TAC § 101.374 (relating to Mobile Discrete Emission Reduction Credit Generation and Certification)
 - (iv) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)
 - (v) Title 30 TAC § 101.378 (relating to Discrete Emission Credit Banking and Trading)
 - (vi) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit
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 either before or 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. 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.
- C. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- D. 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)
- E. Permit holder shall comply with the following requirements for steam generators:
 - (i) Emissions from any oil or gas fuel-fired steam generator with a heat input capacity greater than 2,500 MMBtu per hour may not exceed 0.1 pound of TSP per MMBtu of heat input, averaged over a two-hour period, as required in 30 TAC § 111.153(c) (relating to Emissions Limits for Steam Generators).
- 4. The permit holder shall comply with the requirements of 30 TAC § 115.722(b) (relating to Site-wide Cap and Control Requirements) and the requirements of 30 TAC § 115.726(g) (relating to Recordkeeping and Reporting Requirements).
- 5. The permit holder shall comply with the requirements of 30 TAC § 115.726(e)(3)(A) for vent streams from sources exempt under 30 TAC § 115.727(c)(3).
- 6. 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)
- 7. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

Additional Monitoring Requirements

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).
12. The permit holder shall comply with the following requirements for Air Quality Standard Permits:
- A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit
 - B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit
 - C. Applicable requirements of 30 TAC § 116.617 for Pollution Control Projects based on the information contained in the registration application.
 - D. Requirements of the non-rule Air Quality Standard Permit for Pollution Control Projects

Compliance Requirements

13. 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.
14. Permit holder shall comply with the following 30 TAC Chapter 117 requirements:
- A. The permit holder shall comply with the compliance schedules and submit written notification to the TCEQ Executive Director as required in 30 TAC Chapter 117, Subchapter H, Division 1:
 - (i) For sources in the Houston-Galveston-Brazoria Nonattainment area, 30 TAC § 117.9020:
 - (1) Title 30 TAC § 117.9020(2)(A), (C), and (D)
 - (ii) For electric generating facilities in the Houston-Galveston-Brazoria Nonattainment area, 30 TAC § 117.9020(2)(B)

- B. The permit holder shall comply with the Initial Control Plan unit listing requirement in 30 TAC § 117.350(c) and (c)(1).
 - C. The permit holder shall comply with the requirements of 30 TAC § 117.354 for Final Control Plan Procedures for Attainment Demonstration Emission Specifications and 30 TAC § 117.356 for Revision of Final Control Plan.
15. Use of Emission Credits to comply with applicable requirements:
- A. Unless otherwise prohibited, the permit holder may use 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) Offsets for Title 30 TAC Chapter 116
 - B. The permit holder shall comply with the following requirements in order to use the emission credits to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.306(c)(2)
 - (ii) The 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 1
 - (iii) The executive director has approved the use of the credit according to 30 TAC § 101.306(c)(2)
 - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.302(g) and 30 TAC Chapter 122
16. 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
- 17. The permit holder may comply with the following 30 TAC Chapter 101, Subchapter H, Division 5 (System Cap Trading) Requirements for an electric generating facility participating in a system cap:
 - A. Title 30 TAC § 101.383 (relating to General Provisions)
 - B. Title 30 TAC § 101.385 (relating to Recordkeeping and Reporting)

Risk Management Plan

- 18. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

Permit Location

- 19. 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)

- 20. 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.

Clean Air Interstate Rule Permit Requirements

21. For units CG801, CG802, CG803, CG804, located at the site identified by ORIS/Facility code 10298, 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 20

Applicable Requirements Summary 25

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
BO1	Boilers/Steam Generators/Steam Generating Units	N/A	117B-BOILER	30 TAC Chapter 117, Subchapter B	No changing attributes.
BO1	Boilers/Steam Generators/Steam Generating Units	N/A	60DB-BOILER	40 CFR Part 60, Subpart Db	No changing attributes.
BO1	Boilers/Steam Generators/Steam Generating Units	N/A	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.
BO2	Boilers/Steam Generators/Steam Generating Units	N/A	117B-BOILER	30 TAC Chapter 117, Subchapter B	No changing attributes.
BO2	Boilers/Steam Generators/Steam Generating Units	N/A	60DB-BOILER	40 CFR Part 60, Subpart Db	No changing attributes.
BO2	Boilers/Steam Generators/Steam Generating Units	N/A	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.
BO3	Boilers/Steam Generators/Steam Generating Units	N/A	117B-BOILER	30 TAC Chapter 117, Subchapter B	No changing attributes.
BO3	Boilers/Steam Generators/Steam Generating Units	N/A	60DB-BOILER	40 CFR Part 60, Subpart Db	No changing attributes.
BO3	Boilers/Steam Generators/Steam	N/A	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	Generating Units				
GRP-BOILER	Boilers/Steam Generators/Steam Generating Units	ST-5, ST-6, ST-7	117BOILER	30 TAC Chapter 117, Subchapter B	No changing attributes.
GRP-BOILER	Boilers/Steam Generators/Steam Generating Units	ST-5, ST-6, ST-7	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.
GRP-HRSG	Boilers/Steam Generators/Steam Generating Units	HRSG-1, HRSG-2, HRSG-3, HRSG-4	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.
GRP-BOILER	Emission Points/Stationary Vents/Process Vents	ST-5, ST-6, ST-7	BOIL111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
SMRBDVENT	Emission Points/Stationary Vents/Process Vents	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
SMRFLARE1	Flares	N/A	R1111-F1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
NH-FUG1	Process Heaters/Furnaces	N/A	117HEAT1	30 TAC Chapter 117, Subchapter B	No changing attributes.
NH-FUG2	Process Heaters/Furnaces	N/A	117HEAT1	30 TAC Chapter 117, Subchapter B	No changing attributes.
P2H-FUG1	Process Heaters/Furnaces	N/A	117HEAT1	30 TAC Chapter 117, Subchapter B	No changing attributes.
P3AH-FUG1	Process	N/A	117HEAT1	30 TAC Chapter 117,	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	Heaters/Furnaces			Subchapter B	
RAH-VENT	Process Heaters/Furnaces	N/A	117HEAT1	30 TAC Chapter 117, Subchapter B	No changing attributes.
SMRSTACK	Process Heaters/Furnaces	N/A	117HEAT2	30 TAC Chapter 117, Subchapter B	No changing attributes.
EG100	Stationary Reciprocating Int. Comb. Engines	N/A	117ENG	30 TAC Chapter 117, Subchapter B	No changing attributes.
EG1100	Stationary Reciprocating Int. Comb. Engines	N/A	117ENG1	30 TAC Chapter 117, Subchapter B	No changing attributes.
EG200	Stationary Reciprocating Int. Comb. Engines	N/A	117ENG	30 TAC Chapter 117, Subchapter B	No changing attributes.
EG200	Stationary Reciprocating Int. Comb. Engines	N/A	MACTZZZZ2	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
EG300	Stationary Reciprocating Int. Comb. Engines	N/A	117ENG	30 TAC Chapter 117, Subchapter B	No changing attributes.
EG310	Stationary Reciprocating Int. Comb. Engines	N/A	117ENG	30 TAC Chapter 117, Subchapter B	No changing attributes.
EG310	Stationary Reciprocating Int. Comb. Engines	N/A	MACTZZZZ3	40 CFR Part 63, Subpart ZZZZ	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
EG902	Stationary Reciprocating Int. Comb. Engines	N/A	117ENG	30 TAC Chapter 117, Subchapter B	No changing attributes.
EG902	Stationary Reciprocating Int. Comb. Engines	N/A	MACTZZZZ2	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
P606D	Stationary Reciprocating Int. Comb. Engines	N/A	117ENG	30 TAC Chapter 117, Subchapter B	No changing attributes.
P606E	Stationary Reciprocating Int. Comb. Engines	N/A	117ENG	30 TAC Chapter 117, Subchapter B	No changing attributes.
CG801R	Stationary Turbines	N/A	117B-TURB	30 TAC Chapter 117, Subchapter B	No changing attributes.
CG801R	Stationary Turbines	N/A	60KKKK-TURB	40 CFR Part 60, Subpart KKKK	No changing attributes.
CG801R	Stationary Turbines	N/A	63YYYY-TURB	40 CFR Part 63, Subpart YYYY	No changing attributes.
CG802R	Stationary Turbines	N/A	117B-TURB	30 TAC Chapter 117, Subchapter B	No changing attributes.
CG802R	Stationary Turbines	N/A	60KKKK-TURB	40 CFR Part 60, Subpart KKKK	No changing attributes.
CG802R	Stationary Turbines	N/A	63YYYY-TURB	40 CFR Part 63, Subpart YYYY	No changing attributes.
CG803R	Stationary Turbines	N/A	117B-TURB	30 TAC Chapter 117,	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
				Subchapter B	
CG803R	Stationary Turbines	N/A	60KKKK-TURB	40 CFR Part 60, Subpart KKKK	No changing attributes.
CG803R	Stationary Turbines	N/A	63YYYY-TURB	40 CFR Part 63, Subpart YYYY	No changing attributes.
CG804R	Stationary Turbines	N/A	117B-TURB	30 TAC Chapter 117, Subchapter B	No changing attributes.
CG804R	Stationary Turbines	N/A	60KKKK-TURB	40 CFR Part 60, Subpart KKKK	No changing attributes.
CG804R	Stationary Turbines	N/A	63YYYY-TURB	40 CFR Part 63, Subpart YYYY	No changing attributes.
GRP-TURB	Stationary Turbines	CG-801, CG-802, CG-803, CG-804	R7201-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
GRP-TURB	Stationary Turbines	CG-801, CG-802, CG-803, CG-804	60GG-1	40 CFR Part 60, Subpart GG	No changing attributes.
TK1	Storage Tanks/Vessels	N/A	R5115	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
TK2	Storage Tanks/Vessels	N/A	R5115	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
TK-3	Storage Tanks/Vessels	N/A	R5115	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
TK-DIESEL	Storage Tanks/Vessels	N/A	115TK-00002	30 TAC Chapter 115, Storage of VOCs	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)
BO1	EU	117B-BOILER	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.310(c)(3) § 117.340(f)(1) § 117.8120	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(e) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(B)(iii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8120(i) § 117.8120(1)(A)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(7) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
BO1	EU	117B-BOILER	NH ₃	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(B) § 117.340(f)(1)	For boilers that inject urea or ammonia into the exhaust stream for NO _x control, ammonia emissions must not exceed 10 ppmv at 3.0% O ₂ , dry.	§ 117.335(a)(2) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(g) § 117.340(d) [G]§ 117.340(f)(2)	§ 117.345(a) § 117.345(f) § 117.345(f)(11) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4)

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)
							[G]§ 117.340(g) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8130 § 117.8130(4)		§ 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
BO1	EU	60DB-BOILER	SO ₂	40 CFR Part 60, Subpart Db	§ 60.42b(k)(2)	Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO ₂ emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO ₂ emissions limit in §60.42b(k)(1).	§ 60.47b(f)	§ 60.45b(k) § 60.49b(o) § 60.49b(r) [G]§ 60.49b(r)(2)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(r) [G]§ 60.49b(r)(2)
BO1	EU	60DB-BOILER	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
BO1	EU	60DB-	PM	40 CFR Part 60,	§ 60.40b(a)	This subpart applies to	None	[G]§ 60.49b(d)	§ 60.49b(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)
		BOILER	(OPACITY)	Subpart Db		each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).		§ 60.49b(o)	§ 60.49b(a)(1) § 60.49b(a)(3)
BO1	EU	60DB-BOILER	NO _x	40 CFR Part 60, Subpart Db	§ 60.44b(l)(1) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Affected facilities combusting coal, oil, or natural gas, or a mixture of these fuels, or any other fuels: a limit of 86 ng/JI (0.20 lb/million Btu) heat input unless the affected facility meets the specified requirements.	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(3) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d) § 60.48b(e) [G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(i) § 60.49b(v) § 60.49b(w)
BO1	EU	63DDDD	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
BO2	EU	117B-BOILER	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.310(c)(3) § 117.340(f)(1) § 117.8120	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(7) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4)

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)
							§ 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(e) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(B)(iii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8120(1) § 117.8120(1)(A)		§ 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
BO2	EU	117B-BOILER	NH ₃	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(B) § 117.340(f)(1)	For boilers that inject urea or ammonia into the exhaust stream for NO _x control, ammonia emissions must not exceed 10 ppmv at 3.0% O ₂ , dry.	§ 117.335(a)(2) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(g) § 117.340(d) [G]§ 117.340(f)(2) [G]§ 117.340(g) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2)	§ 117.345(a) § 117.345(f) § 117.345(f)(11) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4)

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)
							[G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8130 § 117.8130(4)		[G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
BO2	EU	60DB-BOILER	SO ₂	40 CFR Part 60, Subpart Db	§ 60.42b(k)(2)	Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO ₂ emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO ₂ emissions limit in §60.42b(k)(1).	§ 60.47b(f)	§ 60.45b(k) § 60.49b(o) § 60.49b(r) [G]§ 60.49b(r)(2)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(r) [G]§ 60.49b(r)(2)
BO2	EU	60DB-BOILER	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
BO2	EU	60DB-BOILER	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)

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)
BO2	EU	60DB-BOILER	NO _x	40 CFR Part 60, Subpart Db	§ 60.44b(l)(1) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Affected facilities combusting coal, oil, or natural gas, or a mixture of these fuels, or any other fuels: a limit of 86 ng/JI (0.20 lb/million Btu) heat input unless the affected facility meets the specified requirements.	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(3) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d) § 60.48b(e) [G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(i) § 60.49b(v) § 60.49b(w)
BO2	EU	63DDDDDD	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
BO3	EU	117B-BOILER	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.310(c)(3) § 117.340(f)(1) § 117.8120	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(e) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(7) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5)

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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)
							§ 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(B)(iii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8120(1) § 117.8120(1)(A)		§ 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
BO3	EU	117B-BOILER	NH ₃	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(B) § 117.340(f)(1)	For boilers that inject urea or ammonia into the exhaust stream for NO _x control, ammonia emissions must not exceed 10 ppmv at 3.0% O ₂ , dry.	§ 117.335(a)(2) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(g) § 117.340(d) [G]§ 117.340(f)(2) [G]§ 117.340(g) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8130	§ 117.345(a) § 117.345(f) § 117.345(f)(11) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)

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)
							§ 117.8130(4)		
BO3	EU	60DB-BOILER	SO ₂	40 CFR Part 60, Subpart Db	§ 60.42b(k)(2)	Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO ₂ emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO ₂ emissions limit in §60.42b(k)(1).	§ 60.47b(f)	§ 60.45b(k) § 60.49b(o) § 60.49b(r) [G]§ 60.49b(r)(2)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(r) [G]§ 60.49b(r)(2)
BO3	EU	60DB-BOILER	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
BO3	EU	60DB-BOILER	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
BO3	EU	60DB-BOILER	NO _x	40 CFR Part 60, Subpart Db	§ 60.44b(l)(1) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Affected facilities combusting coal, oil, or natural gas, or a mixture of these fuels, or any other fuels: a limit of 86 ng/JI (0.20 lb/million Btu) heat input unless the affected facility meets the specified	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(3) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d) § 60.48b(e)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(i) § 60.49b(v) § 60.49b(w)

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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)
						requirements.	[G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f)		
BO3	EU	63DDDDD	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
GRP-BOILER	EU	117BOILER	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B) § 117.310(c)(3) § 117.8120	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(e) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(7) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
GRP-BOILER	EU	63DDDDD	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements	The permit holder shall comply with the applicable recordkeeping	The permit holder shall comply with the applicable reporting requirements of 40 CFR

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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)
					limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD		of 40 CFR Part 63, Subpart DDDDD	requirements of 40 CFR Part 63, Subpart DDDDD	Part 63, Subpart DDDDD
GRP-HRSG	EU	63DDDDD	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
GRP-BOILER	EP	BOIL111-1	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
SMRBDVENT	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(2)(A) [G]§ 115.122(a)(4) § 115.127(a)(2)	A vent gas stream having a combined weight of volatile organic compounds (VOC) < 100 lbs (45.4 kg) in any continuous 24-hour period is exempt from the requirements of § 115.121(a)(1).	[G]§ 115.125 § 115.126(2) § 115.126(3)(B)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(B)	None
SMRBDVENT	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(2)(B) [G]§ 115.122(a)(4) § 115.127(a)(2)	A vent gas stream specified in § 115.121(a)(1) of this title with a concentration	[G]§ 115.125 § 115.126(2) § 115.126(3)(C)	§ 115.126 § 115.126(2) § 115.126(3)	None

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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)
						of VOC < 612 ppmv is exempt from § 115.121(a)(1).		§ 115.126(3)(C)	
SMRFLARE1	EU	R1111-F1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
NH-FUG1	EU	117HEAT1	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(ii) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(2)(C) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.340(p)(2)(A) § 117.340(p)(2)(B) § 117.340(p)(2)(C) § 117.8000(b) § 117.8000(c) § 117.8000(c)(1) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) § 117.340(p)(2)(D) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
NH-FUG1	EU	117HEAT1	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B) § 117.310(c)(3)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1)

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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)
							§ 117.340(a) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) § 117.8120 § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)		§ 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
NH-FUG2	EU	117HEAT1	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(ii) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(2)(C) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.340(p)(2)(A) § 117.340(p)(2)(B) § 117.340(p)(2)(C) § 117.8000(b) § 117.8000(c) § 117.8000(c)(1) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) § 117.340(p)(2)(D) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
NH-FUG2	EU	117HEAT1	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B) § 117.310(c)(3)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010

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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)
							§ 117.335(g) § 117.340(a) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) § 117.8120 § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)		[G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
P2H-FUG1	EU	117HEAT1	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(ii) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(2)(C) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.340(p)(2)(A) § 117.340(p)(2)(B) § 117.340(p)(2)(C) § 117.8000(b) § 117.8000(c) § 117.8000(c)(1) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) § 117.340(p)(2)(D) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
P2H-FUG1	EU	117HEAT1	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B) § 117.310(c)(3)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c)

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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)
							§ 117.335(e) § 117.335(g) § 117.340(a) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) § 117.8120 § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)		§ 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
P3AH-FUG1	EU	117HEAT1	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(ii) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(2)(C) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.340(p)(2)(A) § 117.340(p)(2)(B) § 117.340(p)(2)(C) § 117.8000(b) § 117.8000(c) § 117.8000(c)(1) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) § 117.340(p)(2)(D) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
P3AH-FUG1	EU	117HEAT1	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B) § 117.310(c)(3)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b)	§ 117.345(a) § 117.345(f) § 117.345(f)(1)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b)

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)
							§ 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) § 117.8120 § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)	§ 117.345(f)(9)	[G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
RAH-VENT	EU	117HEAT1	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(ii) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(2)(C) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.340(p)(2)(A) § 117.340(p)(2)(B) § 117.340(p)(2)(C) § 117.8000(b) § 117.8000(c) § 117.8000(c)(1) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) § 117.340(p)(2)(D) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
RAH-VENT	EU	117HEAT1	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B)	CO emissions must not exceed 400 ppmv at 3.0%	[G]§ 117.335(a)(1) § 117.335(a)(4)	§ 117.345(a) § 117.345(f)	§ 117.335(b) § 117.335(g)

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)
					§ 117.310(c)(3)	O ₂ , dry basis.	§ 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) § 117.8120 § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)	§ 117.345(f)(1) § 117.345(f)(9)	[G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
SMRSTACK	EU	117HEAT2	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(i) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(f)(1) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(2) § 117.335(g) § 117.340(a)(2)(A) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(f)(2) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(i) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2)	§ 117.345(a) § 117.345(f) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(3) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)

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)
							[G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)		
SMRSTACK	EU	117HEAT2	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.310(c)(3) § 117.340(f)(1)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g) § 117.340(a)(2)(A) § 117.340(e) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(B)(iii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8120 § 117.8120(1) § 117.8120(1)(A)	§ 117.345(a) § 117.345(f) [G]§ 117.345(f)(2) § 117.345(f)(7) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)

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)
SMRSTACK	EU	117HEAT2	NH ₃	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(B) § 117.340(f)(1)	For process heaters that inject urea or ammonia into the exhaust stream for NO _x control, ammonia emissions must not exceed 10 ppmv at 3.0% O ₂ , dry.	§ 117.335(a)(2) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(g) § 117.340(d) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) [G]§ 117.8130	§ 117.345(a) § 117.345(f) § 117.345(f)(11) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
EG100	EU	117ENG	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [G]§ 117.310(f)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and 117.354(a)(5), include stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	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)
						to 52 hours per year, based on a rolling 12-month average.			
EG1100	EU	117ENG1	EXEMPT	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(11) [G]§ 117.310(f)	Units exempted from the provisions of this division except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1) and 117.354(a)(5) include new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and meets the requirements for non-road engines as specified. §117.303(a)(11)(A)-(B)	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
EG200	EU	117ENG	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and 117.354(a)(5), include stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up	None	§ 117.340(j) [G]§ 117.345(f)(6)	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)
						to 52 hours per year, based on a rolling 12-month average.			
EG200	EU	MACTZZZ Z2	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart ZZZZ
EG300	EU	117ENG	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [G]§ 117.310(f)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and 117.354(a)(5), include stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up to 52 hours per year, based on a rolling 12-month average.	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
EG310	EU	117ENG	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [G]§ 117.310(f)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	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)
						117.354(a)(5), include stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up to 52 hours per year, based on a rolling 12-month average.			
EG310	EU	MACTZZZ Z3	EXEMPT	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(b)(1) § 63.6595(c) § 63.6605(b) [G]§ 63.6640(f)(1)	An affected source which meets either of the criteria in paragraph (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(f).	None	None	§ 63.6645(c) § 63.6645(f)
EG902	EU	117ENG	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [G]§ 117.310(f)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and 117.354(a)(5), include stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	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)
						to 52 hours per year, based on a rolling 12-month average.			
EG902	EU	MACTZZZ Z2	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart ZZZZ	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart ZZZZ
P606D	EU	117ENG	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [G]§ 117.310(f)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and 117.354(a)(5), include stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up to 52 hours per year, based on a rolling 12-month average.	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
P606E	EU	117ENG	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [G]§ 117.310(f)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	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)
						117.354(a)(5), include stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up to 52 hours per year, based on a rolling 12-month average.			
CG801R	EU	117B-TURB	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.340(f)(1)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g) § 117.340(a) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(B)(iii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8120	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)

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)
							§ 117.8120(1) § 117.8120(1)(A)		
CG801R	EU	60KKKK-TURB	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4333(a) § 60.4335(b)(1) [G]§ 60.4345	Heat recovery units operating independent of the combustion turbine must meet the nitrogen oxides emission standard of 54 ppm at 15 percent O ₂ .	§ 60.4335(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(f)(1) § 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)	[G]§ 60.4345 § 60.4350(d) § 60.4375(a) [G]§ 60.4380(b)
CG801R	EU	63YYYY-TURB	112(B) HAPS	40 CFR Part 63, Subpart YYYY	§ 63.6095(d)	If you start up a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion turbine or diffusion flame gas-fired stationary combustion turbine as defined by this subpart, you must comply with the Initial Notification requirements set forth in §63.6145 but need not comply with any other requirement of this subpart until EPA takes final action to require compliance.	None	None	§ 63.6145(a) § 63.6145(b) § 63.6145(c) § 63.6145(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)
CG802R	EU	117B-TURB	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.340(f)(1)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g) § 117.340(a) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(B)(iii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8120 § 117.8120(1) § 117.8120(1)(A)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
CG802R	EU	60KKKK-TURB	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4333(a) § 60.4335(b)(1) [G]§ 60.4345	Heat recovery units operating independent of the combustion turbine must meet the nitrogen oxides emission standard of 54 ppm at 15 percent O ₂ .	§ 60.4335(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(f)(1) § 60.4350(g)	[G]§ 60.4345 § 60.4350(b)	[G]§ 60.4345 § 60.4350(d) § 60.4375(a) [G]§ 60.4380(b)

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)
							[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		
CG802R	EU	63YYYY-TURB	112(B) HAPS	40 CFR Part 63, Subpart YYYY	§ 63.6095(d)	If you start up a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion turbine or diffusion flame gas-fired stationary combustion turbine as defined by this subpart, you must comply with the Initial Notification requirements set forth in §63.6145 but need not comply with any other requirement of this subpart until EPA takes final action to require compliance.	None	None	§ 63.6145(a) § 63.6145(b) § 63.6145(c) § 63.6145(d)
CG803R	EU	117B-TURB	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.340(f)(1)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g) § 117.340(a) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(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)
							§ 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(B)(iii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8120 § 117.8120(1) § 117.8120(1)(A)		§ 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
CG803R	EU	60KKKK-TURB	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4333(a) § 60.4335(b)(1) [G]§ 60.4345	Heat recovery units operating independent of the combustion turbine must meet the nitrogen oxides emission standard of 54 ppm at 15 percent O ₂ .	§ 60.4335(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(f)(1) § 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)	[G]§ 60.4345 § 60.4350(d) § 60.4375(a) [G]§ 60.4380(b)
CG803R	EU	63YYYY-TURB	112(B) HAPS	40 CFR Part 63, Subpart YYYY	§ 63.6095(d)	If you start up a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion	None	None	§ 63.6145(a) § 63.6145(b) § 63.6145(c) § 63.6145(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)
						turbine or diffusion flame gas-fired stationary combustion turbine as defined by this subpart, you must comply with the Initial Notification requirements set forth in §63.6145 but need not comply with any other requirement of this subpart until EPA takes final action to require compliance.			
CG804R	EU	117B-TURB	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.340(f)(1)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g) § 117.340(a) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(B)(iii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)

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)
							§ 117.8120 § 117.8120(1) § 117.8120(1)(A)		
CG804R	EU	60KKKK-TURB	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4333(a) § 60.4335(b)(1) [G]§ 60.4345	Heat recovery units operating independent of the combustion turbine must meet the nitrogen oxides emission standard of 54 ppm at 15 percent O ₂ .	§ 60.4335(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(f)(1) § 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)	[G]§ 60.4345 § 60.4350(d) § 60.4375(a) [G]§ 60.4380(b)
CG804R	EU	63YYYY-TURB	112(B) HAPS	40 CFR Part 63, Subpart YYYY	§ 63.6095(d)	If you start up a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion turbine or diffusion flame gas-fired stationary combustion turbine as defined by this subpart, you must comply with the Initial Notification requirements set forth in §63.6145 but need not comply with any other requirement of this subpart until EPA takes final action to require compliance.	None	None	§ 63.6145(a) § 63.6145(b) § 63.6145(c) § 63.6145(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)
GRP-TURB	EU	R7201-1	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(10)(A) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(g) § 117.340(a) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(g) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.8100(b) § 117.8100(b)(1) [G]§ 117.8100(b)(1)(A) § 117.8100(b)(1)(B) § 117.8100(b)(2) § 117.8100(b)(3) § 117.8100(b)(3)(A) § 117.8100(b)(3)(B) § 117.8100(b)(4) § 117.8100(b)(4)(A) § 117.8100(b)(4)(A)(i) § 117.8100(b)(4)(A)(i)(I) § 117.8100(b)(4)(A)(i)(II) [G]§ 117.8100(b)(4)(A)(ii) [G]§ 117.8100(b)(4)(B) § 117.8100(b)(4)(C) § 117.8100(b)(4)(C)(i) § 117.8100(b)(4)(C)(ii) § 117.8100(b)(4)(C)(iii) § 117.8100(b)(4)(C)(iii)(I) § 117.8100(b)(4)(C)(iii)(II) §	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(3) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)

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)
							117.8100(b)(4)(C)(iii)(II) (-a-) § 117.8100(b)(5) § 117.8100(b)(6)		
GRP-TURB	EU	R7201-1	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) § 117.8120 § 117.8120(2) [G]§ 117.8120(2)(A) § 117.8120(2)(B)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8)
GRP-TURB	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) § 60.334(h)(4)	None	None
GRP-TURB	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.	§ 60.334(c)	§ 60.334(c)	None
TK1	EU	R5115	VOC	30 TAC Chapter	§ 115.111(a)(1)	Except as provided in §	[G]§ 115.117	§ 115.118(a)(1)	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)
				115, Storage of VOCs		115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.		§ 115.118(a)(5) § 115.118(a)(7)	
TK2	EU	R5115	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
TK-3	EU	R5115	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
TK-DIESEL	EU	115TK-00002	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None

Additional Monitoring Requirements

Periodic Monitoring Summary.....58

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP-BOILER	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: BOIL111-1
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per week	
Averaging Period: n/a	
Deviation Limit: The presence of visible emissions shall be reported as a deviation.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

Permit Shield

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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-BOILER	ST-5, ST-6, ST-7	40 CFR Part 60, Subpart D	Constructed prior to 08-17-1971.
GRP-HRSG	HRSG-1, HRSG-2, HRSG-3, HRSG-4	40 CFR Part 60, Subpart Db	Constructed prior to 06-19-1984
SMRFLARE1	N/A	40 CFR Part 60, Subpart A	Flare does not control an NSPS source
NH ₃ VENT	N/A	30 TAC Chapter 115, Vent Gas Controls	Vent gas stream does not contain VOC
PRO-SMR	N/A	40 CFR Part 63, Subpart F	The Steam Methane Reformer (SMR) plant does not manufacture or use compounds listed in Table 1 and 2 of HON.
SMRCT	N/A	40 CFR Part 63, Subpart Q	Chromium-based water treatment chemicals are not utilized
SMRFUG	N/A	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	SMR unit is not a refinery, SOCOMI plant, polymer plant, resin plant, MTBE plant or gas processing plant.
SMRFUG	N/A	40 CFR Part 60, Subpart VV	This is not a SOCOMI facility.
SMRGLYCOL	N/A	30 TAC Chapter 115, Storage of VOCs	Tank capacity < 1000 gallons.
SMRGLYCOL	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 73 cubic meters.
SMRH ₂ VENT	N/A	30 TAC Chapter 115, Vent Gas Controls	Vent gas stream does not contain VOC
SMRNH ₃ TNK	N/A	30 TAC Chapter 115, Storage of VOCs	Tank does not store VOC.

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		
SMR _{NH₃} TNK	N/A	40 CFR Part 60, Subpart Kb	Tank does not store VOL.
SSM&PIPELINE	N/A	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	SMR unit is not a refinery, SOCOMI plant, polymer plant, resin plant, MTBE plant or gas processing plant
SSM&PIPELINE	N/A	40 CFR Part 60, Subpart VV	This is not a SOCOMI facility
TK-2	N/A	40 CFR Part 60, Subpart K	Capacity less than 40,000 gallons.
SMRSTACK	N/A	30 TAC Chapter 115, Vent Gas Controls	Heater is a combustion unit not controlling VOC vents
CG801R	N/A	40 CFR Part 60, Subpart GG	The unit is exempt because it is regulated under NSPS KKKK.
CG802R	N/A	40 CFR Part 60, Subpart GG	The unit is exempt because it is regulated under NSPS KKKK.
CG803R	N/A	40 CFR Part 60, Subpart GG	The unit is exempt because it is regulated under NSPS KKKK.
CG804R	N/A	40 CFR Part 60, Subpart GG	The unit is exempt because it is regulated under NSPS KKKK.
TK1	N/A	40 CFR Part 60, Subpart Ka	Capacity less than 40,000 gallons.
TK-3	N/A	40 CFR Part 60, Subpart K	Capacity less than 40,000 gallons.
TK-ACID	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank does not store a VOC.

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		
TK-DIESEL	N/A	40 CFR Part 60, Subpart Kb	Storage tank has a design capacity less than 75 cubic meters.
TK-NAOH	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank does not store a VOC.

New Source Review Authorization References

New Source Review Authorization References 64

New Source Review Authorization References by Emission Unit..... 66

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.: PSDTX612M1	Issuance Date: 07/19/2013
PSD Permit No.: PSDTX612M2	Issuance Date: 09/05/2013
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.: 56212	Issuance Date: 03/20/2013
Authorization No.: 73110	Issuance Date: 06/13/2011
Authorization No.: 75225	Issuance Date: 01/26/2012
Authorization No.: 9346	Issuance Date: 09/05/2013
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.183	Version No./Date: 06/18/1997
Number: 106.183	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: 106.371	Version No./Date: 09/04/2000
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 03/14/1997
Number: 106.511	Version No./Date: 09/04/2000
Number: 5	Version No./Date: 05/05/1976
Number: 5	Version No./Date: 01/08/1980
Number: 5	Version No./Date: 08/30/1988
Number: 6	Version No./Date: 04/25/1986
Number: 6	Version No./Date: 11/05/1986
Number: 67	Version No./Date: 05/12/1981

New Source Review Authorization References

The following is a New Source Review authorizations issued by EPA.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX612GHG	Issuance Date: 11/21/2013

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
BO1	NEW BOILER 1	9346, PSDTX612M2
BO2	NEW BOILER 2	9346, PSDTX612M2
BO3	NEW BOILER 3	9346, PSDTX612M2
CG-801	COMBUSTION GAS TURBINE/HRSG SET #1	75225, 9346, PSDTX612M1
CG801R	REPLACEMENT GAS TURBINE	9346, PSDTX612M2
CG-802	COMBUSTION GAS TURBINE/HRSG SET #2	75225, 9346, PSDTX612M1
CG802R	REPLACEMENT GAS TURBINE	9346, PSDTX612M2
CG-803	COMBUSTION GAS TURBINE/HRSG SET #3	75225, 9346, PSDTX612M1
CG803R	REPLACEMENT GAS TURBINE	9346, PSDTX612M2
CG-804	COMBUSTION GAS TURBINE/HRSG SET #4	75225, 9346, PSDTX612M1
CG804R	REPLACEMENT GAS TURBINE	9346, PSDTX612M2
CT-1	COOLING TOWER	106.371/09/04/2000
CT-2	COOLING TOWER	106.371/09/04/2000
CT-3	COOLING TOWER	106.371/09/04/2000
EG100	ASU EMERGENCY GENERATOR 1100 HP B	106.511/03/14/1997
EG1100	UTILITIES EMERGENCY GENERATOR 1485HP	106.511/03/14/1997
EG200	ASU EMERGENCY GENERATOR 150 HP	005/05/05/1976
EG300	ASU EMERGENCY GENERATOR 1100 HP A	005/05/05/1976

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
EG310	EMERGENCY ENGINE	106.511/09/04/2000
EG902	IWTC EMERGENCY GENERATOR 220HP	005/01/08/1980
HRSG-1	HEAT RECOVERY STEAM GENERATOR 1	75225, 9346, PSDTX612M1
HRSG-2	HEAT RECOVERY STEAM GENERATOR 2	75225, 9346, PSDTX612M1
HRSG-3	HEAT RECOVERY STEAM GENERATOR 3	75225, 9346, PSDTX612M1
HRSG-4	HEAT RECOVERY STEAM GENERATOR 4	75225, 9346, PSDTX612M1
NH ₃ VENT	NH ₃ STORAGE GAS VENT	73110
NH-FUG1	NITROGEN VAPORIZER HEATER # 1	106.183/09/04/2000
NH-FUG2	NITROGEN VAPORIZER HEATER # 2	106.183/09/04/2000
P2H-FUG1	PLANT 2 ASU HEATER	106.183/09/04/2000
P3AH-FUG1	PLANT 3A ASU HEATER	106.183/06/18/1997
P606D	IWTC EMERGENCY WATER PUMP 750 HP	006/11/05/1986
P606E	IWTC EMERGENCY WATER PUMP 985 HP	005/08/30/1988
PRO-SMR	SMR PROCESS UNIT	73110
RAH-VENT	OXYGEN VAPORIZER HEATER	106.183/09/04/2000
SMRBDVENT	SMR BLOWDOWN VENT	73110
SMRCT	COOLING TOWERS	73110
SMRFLARE1	SMR FLARE	73110

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
SMRFUG	PROCESS FUGITIVES	73110
SMRGLYCOL	GLYCOL STORAGE TANK	73110
SMRH ₂ VENT	HYDROGEN COMPRESSOR VENT	73110
SMRNH ₃ TNK	AMMONIA TANK UNLOADING	73110
SMRSTACK	SMR FURNACE STACK	73110
SSM&PIPELINE	SSM & PIPELINE CONSTRAINTS	73110
ST-5	BOILER 5	56212
ST-6	BOILER 6	56212
ST-7	PROCESS STEAM BOILER #7	56212
TK1	STORAGE TANK 1	067/05/12/1981
TK-2	STORAGE TANK 2	106.472/09/04/2000
TK2	STORGE TANK 2	106.472/09/04/2000
TK-3	STORAGE TANK 3	106.472/09/04/2000
TK-ACID	SULFURIC ACID TANK	106.472/09/04/2000
TK-DIESEL	DIESEL TANK	106.472/09/04/2000
TK-NAOH	SODIUM HYDROXIDE TANK	106.472/09/04/2000

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations issued by EPA for emission units listed elsewhere in this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
BO1	NEW BOILER 1	9346, PSDTX612GHG
BO2	NEW BOILER 2	9346, PSDTX612GHG
BO3	NEW BOILER 3	9346, PSDTX612GHG
CG801R	REPLACEMENT GAS TURBINE	9346, PSDTX612GHG
CG802R	REPLACEMENT GAS TURBINE	9346, PSDTX612GHG
CG803R	REPLACEMENT GAS TURBINE	9346, PSDTX612GHG
CG804R	REPLACEMENT GAS TURBINE	9346, PSDTX612GHG

Appendix A

Acronym List71

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
GHG	Green House Gas
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..... 73

Major NSR Summary Table

Permit Number: 9346 and PSDTX612M1			Issuance Date: 07/19/2013				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
CG801	Turbine HRSG Stack	NOx	170.21	745.52	2,6,8,10	2,6,8,10,11	2,6,8
		CO	24.20	106	2,6,8	2,6,8	2,6,8
		VOC	8.10	35.50	2,6	2,6	2,6
		SO2	31.30	137.2	2,6	2,6	2,6
		PM	11.50	50.40	2,6,8	2,6	2,6,8
CG802	Turbine HRSG Stack	NOx	170.21	745.52	2,6,8,10	2,6,8,10,11	2,6,8
		CO	24.20	106	2,6,8	2,6,8	2,6,8
		VOC	8.10	35.50	2,6	2,6	2,6
		SO2	31.30	137.2	2,6	2,6	2,6
		PM	11.50	50.40	2,6,8	2,6	2,6,8
CG803	Turbine HRSG Stack	NOx	170.21	745.52	2,6,8,10	2,6,8,10,11	2,6,8
		CO	24.20	106	2,6,8	2,6,8	2,6,8
		VOC	8.10	35.50	2,6	2,6	2,6
		SO2	31.30	137.2	2,6	2,6	2,6
		PM	11.50	50.40	2,6,8	2,6	2,6,8
CG804	Turbine HRSG Stack	NOx	170.21	745.52	2,6,8,10	2,6,8,10,11	2,6,8
		CO	24.20	106	2,6,8	2,6,8	2,6,8
		VOC	8.10	35.50	2,6	2,6	2,6
		SO2	31.30	137.2	2,6	2,6	2,6

Major NSR Summary Table

Permit Number: 9346 and PSDTX612M1				Issuance Date: 07/19/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
		PM	11.50	50.40	2,6,8	2,6	2,6,8

Footnotes:

- 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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code§ 101.1
 NOx total oxides of nitrogen
 CO carbon monoxide
 SO2 sulfur dioxide
 PM - total particulate matter, suspended in the atmosphere, including PM10 and PM25, as represented;
 total particulate matter includes both filterable and condensable ("back half") PM
- 4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- 5) These emissions are permitted under both PSDTX612M1 and State Permit No. 9346.
- 6) The EPNs covered by this permit are also subject to two Standard Permits (SP) for Pollution Control Projects (Nos. 55810 and 75225). The referenced SPs authorize decreases to the NOx emission rate and increases to the CO emission rate for the facility authorized by this New Source Review Permit.

Major NSR Summary Table

Permit Number: 9346 and PSDTX612M2			Issuance Date: 09/05/2013				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
CG801	Replacement Gas Turbine Only	NOx	17.46	76.48	2,15,16,18	2,15,16,18,19,20	2,15,16,21
		NOx(7)	170.00		12,14,18	12,14,18,20	
		CO	31.89	139.67	15,16,18	15,16,18,19,20	15,16,21
		CO(7)	450.00		12,14,18	12,14,18,20	
		VOC	1.89	8.26	15,18	15,18,19,20	15,21
		VOC(7)	15.50		12,14,18	12,14,18,20	
		SO ₂	0.66	2.91	2,4,15,18	2,15,18,19,20	2,15,21
		PM	4.50	19.71	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	4.50	19.71	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	3.90	17.08	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.07	0.29	15,18	15, 18,19,20	15,21
		HAPs	0.60	---	15,18	15,18,19,20	15,21
CG802	Replacement Gas Turbine Only	NOx	17.46	76.48	2,15,16,18	2,15,16,18,19,20	2,15,16,21
		NOx(7)	170.00		12,14,18	12,14,18,20	
		CO	31.89	139.67	15,16,18	15,16,18,19,20	15,16,21
		CO(7)	450.00		12,14,18	12,14,18,20	
		VOC	1.89	8.26	15,18	15,18,19,20	15,21
		VOC(7)	15.50		12,14,18	12,14,18,20	

Major NSR Summary Table

Permit Number: 9346 and PSDTX612M2			Issuance Date: 09/05/2013				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
		SO ₂	0.66	2.91	2,4,15,18	2,15,18,19,20	2,15,21
		PM	4.50	19.71	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	4.50	19.71	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	3.90	17.08	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.07	0.29	15,18	15, 18,19,20	15,21
		HAPs	0.60	---	15,18	15,18,19,20	15,21
CG803	Replacement Gas Turbine Only	NOx	17.46	76.48	2,15,16,18	2,15,16,18,19,20	2,15,16,21
		NOx(7)	170.00		12,14,18	12,14,18,20	
		CO	31.89	139.67	15,16,18	15,16,18,19,20	15,16,21
		CO(7)	450.00		12,14,18	12,14,18,20	
		VOC	1.89	8.26	15,18	15,18,19,20	15,21
		VOC(7)	15.50		12,14,18	12,14,18,20	
		SO ₂	0.66	2.91	2,4,15,18	2,15,18,19,20	2,15,21
		PM	4.50	19.71	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	4.50	19.71	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	3.90	17.08	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.07	0.29	15,18	15, 18,19,20	15,21
		HAPs	0.60	---	15,18	15,18,19,20	15,21

Major NSR Summary Table

Permit Number: 9346 and PSDTX612M2			Issuance Date: 09/05/2013				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
CG804	Replacement Gas Turbine Only	NOx	17.46	76.48	2,15,16,18	2,15,16,18,19,20	2,15,16,21
		NOx(7)	170.00		12,14,18	12,14,18,20	
		CO	31.89	139.67	15,16,18	15,16,18,19,20	15,16,21
		CO(7)	450.00		12,14,18	12,14,18,20	
		VOC	1.89	8.26	15,18	15,18,19,20	15,21
		VOC(7)	15.50		12,14,18	12,14,18,20	
		SO ₂	0.66	2.91	2,4,15,18	2,15,18,19,20	2,15,21
		PM	4.50	19.71	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	4.50	19.71	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	3.90	17.08	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.07	0.29	15,18	15, 18,19,20	15,21
		HAPs	0.60	---	15,18	15,18,19,20	15,21
CG801	Replacement Gas Turbine and Duct Burner Firing	NOx	18.68	81.83	2,5,15,16,18	2,15,16,18,19,20	2,15,16,21
		NOx(7)	171.22		12,14,18	12,14,18, 20	
		CO	38.53	168.74	15,16,18	15,16,18,19,20	15,16,21
		CO(7)	456.64		12,14,18	12,14,18,20	
		VOC	2.55	11.17	15,18	15,18,19,20	15,21
		VOC(7)	16.16		12,14,18	12,14,18,20	

Major NSR Summary Table

Permit Number: 9346 and PSDTX612M2			Issuance Date: 09/05/2013				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
		SO ₂	0.76	3.34	2,4,15,18	2,15,18,19,20	2,15,21
		PM	5.74	25.12	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	5.74	25.12	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	5.14	22.50	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.08	0.33	15,18	15,18,19,20	15,21
		HAPs	0.91	---	15,18	15,18,19,20	15,21
CG802	Replacement Gas Turbine and Duct Burner Firing	NOx	18.68	81.83	2,5,15,16,18	2,15,16,18,19,20	2,15,16,21
		NOx(7)	171.22		12,14,18	12,14,18,20	
		CO	38.53	168.74	15,16,18	15,16,18,19,20	15,16,21
		CO(7)	456.64		12,14,18	12,14,18,20	
		VOC	2.55	11.17	15,18	15,18,19,20	15,21
		VOC(7)	16.16		12,14,18	12,18,14,20	
		SO ₂	0.76	3.34	2,4,15,18	2,15,18,19,20	2,15,21
		PM	5.74	25.12	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	5.74	25.12	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	5.14	22.50	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.08	0.33	15,18	15,18,19,20	15,21
		HAPs	0.91	---	15,18	15,18,19,20	15,21

Major NSR Summary Table

Permit Number: 9346 and PSDTX612M2				Issuance Date: 09/05/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
CG803	Replacement Gas Turbine and Duct Burner Firing	NOx	18.68	81.83	2,5,15,16,18	2,15,16,18,19,20	2,15,16,21
		NOx(7)	171.22		12,14,18	12,14,18,20	
		CO	38.53	168.74	15,16,18	15,16,18,19,20	15,16,21
		CO(7)	456.64		12,14,18	12,14,18,20	
		VOC	2.55	11.17	15,18	15,18,19,20	15,21
		VOC(7)	16.16		12,14,18	12,14,18,20	
		SO ₂	0.76	3.34	2,4,15,18	2,15,18,19,20	2,15,21
		PM	5.74	25.12	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	5.74	25.12	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	5.14	22.50	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.08	0.33	15,18	15,18,19,20	15,21
		HAPs	0.91	---	15,18	15,18,19,20	15,21
CG804		Replacement Gas Turbine and Duct Burner Firing	NOx	18.68	81.83	2,5,15,16,18	2,15,16,18,19,20
	NOx(7)		171.22		12,14,18	12,14,20,18	
	CO		38.53	168.74	15,16,18	15,16,18,19,20	15,16,21
	CO(7)		456.64		12,14,18	12,14,18,20	
	VOC		2.55	11.17	15,18	15,18,19,20	15,21

Major NSR Summary Table

Permit Number: 9346 and PSDTX612M2				Issuance Date: 09/05/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
		VOC(7)	16.16		12,14,18	12,14,18,20	
		SO ₂	0.76	3.34	2,4,15,18	2,15,18,19,20	2,15,21
		PM	5.74	25.12	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	5.74	25.12	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	5.14	22.50	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.08	0.33	15,18	15,18,19,20	15,21
		HAPs	0.91	---	15,18	15,18,19,20	15,21
BO1	New Boiler 1	NOx	5.50	17.95	2,15,16,18	2,15,16,18,19,20	2,15,16,21
		NOx(7)	165.00		12,14,18	12,14,18,20	
		CO	20.35	66.41	15,16,18	15,16,18,19,20	15,16,21
		CO(7)	203.5		12,14,18	12,14,18,20	
		VOC	2.20	7.18	15,18	15,18,19,20	15,21
		VOC(7)	22.00		12,14,18	12,14,18,20	
		SO ₂	0.39	1.26	2,4,15,18	2,15,18,19,20	2,15,21
		PM	4.40	14.36	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	2.75	8.97	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	1.65	5.38	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.04	0.13	15,18	15,18,19,20	15,21
		HAPs	1.02	---	15,18	15,18,19,20	15,21

Major NSR Summary Table

Permit Number: 9346 and PSDTX612M2				Issuance Date: 09/05/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
		NH ₃	2.47	8.07	8,9,15,17,18	15,17,18,19,20	15,21
BO2	New Boiler 2	NOx	5.50	17.95	2,15,16,18	2,15,16,18,19,20	2,15,16,21
		NOx(7)	165.00		12,14,18	12,14,18,20	
		CO	20.35	66.41	15,16,18	15,16,18,19,20	15,16,21
		CO(7)	203.5		12,14,18	12,14,18,20	
		VOC	2.20	7.18	15,18	15,18,19,20	15,21
		VOC(7)	22.00		12,14,18	12,14,18,20	
		SO ₂	0.39	1.26	2,4,15,18	2,15,18,19,20	2,15,21
		PM	4.40	14.36	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	2.75	8.97	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	1.65	5.38	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.04	0.13	15,18	15,18,19,20	15,21
		HAPs	1.02	---	15,18	15,18,19,20	15,21
		NH ₃	2.47	8.07	8,9,15,17,18	15,17,18,19,20	15,21
BO3	New Boiler 3	NOx	5.50	17.95	2,15,16,18	2,15,16,18,19,20	2,15,16, 21
		NOx(7)	165.00		12,14,18	12,14,18,20	
		CO	20.35	66.41	15,16,18	15,16,18,19,20	15,16,21
		CO(7)	203.5		12,14,18	12,14,18,20	
		VOC	2.20	7.18	15,18	15,18,19,20	15,21

Major NSR Summary Table

Permit Number: 9346 and PSDTX612M2				Issuance Date: 09/05/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
		VOC(7)	22.00		12,14,18	12,14,18,20	
		SO ₂	0.39	1.26	2,4,15,18	2,15,18,19,20	2,15,21
		PM	4.40	14.36	2,7,15,18	2,7,15,18,19,20	2,15,21
		PM ₁₀	2.75	8.97	7,15,18	7,15,18,19,20	15,21
		PM _{2.5}	1.65	5.38	7,15,18	7,15,18,19,20	15,21
		H ₂ SO ₄	0.04	0.13	15,18	15,18,19,20	15,21
		HAPs	1.02	---	15,18	15,18,19,20	15,21
		NH ₃	2.47	8.07	8,9,15,17,18	15,17,18,19,20	15,21
CG801R,CG802R CG803R, CG804R BO1, BO2, BO3	Site-Wide HAPs	Total HAPs		23.3	15,18	15,18,19,20	15,21
		Any Single HAP		10	15,18	15,18,19,20	15,21
MSS-FUG	Maintenance Fugitive Emissions	VOC	16.2	0.04	12,14	12,14,20	
FUG-Ammonia	Fugitive Ammonia Emissions	NH3	0.01	0.06	9	9,20	

Footnotes:

(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) NO_x - total oxides of nitrogen

NH₃ - ammonia

Major NSR Summary Table

SO₂ - sulfur dioxide

CO - carbon monoxide

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

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

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

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

H₂SO₄ - sulfuric acid

HAPs - Hazardous Air Pollutants

- (4) The pound per hour (lb/hr) and ton per year (tpy) emission limits specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities, unless otherwise noted.
- (5) For each pollutant whose emissions during planned MSS activities are measured using a CEMS, the MSS lb/hr limits apply only during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.
- (6) Compliance with annual emission limits is based on a rolling 12-month period.
- (7) MSS hourly emission limit only. The tpy emission limit specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.

Major NSR Summary Table

Permit Number: PSD-TX-612-GHG			Issuance Date: 11/21/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			TPY	Spec. Cond.	Spec. Cond.	Spec. Cond.
CG801	Combustion Turbine	CO ₂	485,112	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		CH ₄	9.15	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		N ₂ O	0.91	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		CO ₂ e	485,588	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
CG802	Combustion Turbine	CO ₂	485,112	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		CH ₄	9.15	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		N ₂ O	0.91	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		CO ₂ e	485,588	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
CG803	Combustion Turbine	CO ₂	485,112	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		CH ₄	9.15	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		N ₂ O	0.91	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		CO ₂ e	485,588	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
CG804	Combustion Turbine	CO ₂	485,112	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		CH ₄	9.15	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		N ₂ O	0.91	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
		CO ₂ e	485,588	III.A.2,3,4,5,6,12,13;B.2;G.1,2,3;V.A,B,H,I	III.A.2,3,12,15;B.1,3,VI.1,2,3,4	V.B;D;IV.2
BO1	Boiler 1	CO ₂	209,750	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
		CH ₄	3.96	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
		N ₂ O	0.4	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2

Major NSR Summary Table

Permit Number: PSD-TX-612-GHG			Issuance Date: 11/21/2013			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			TPY	Spec. Cond.	Spec. Cond.	Spec. Cond.
		CO ₂ e	209,957	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
BO2	Boiler 2	CO ₂	209,750	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
		CH ₄	3.96	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
		N ₂ O	0.4	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
		CO ₂ e	209,957	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
BO3	Boiler 3	CO ₂	209,750	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
		CH ₄	3.96	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
		N ₂ O	0.4	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
		CO ₂ e	209,957	III.C.10,11,12,13,14,15;G.1,2,3; V.A,C,H,I	III.C.10,14;D.1, VI.1,2,3,4	V.C;D;IV.2
Total²		CO ₂	2,569,698			
		CH ₄	48.5			
		N ₂ O	4.8			
		CO ₂ e	2,572,215			

Footnotes:

* includes complete section

**The table only includes GHG limits for the new replacement turbines and does not include the contribution from existing duct burners.

1. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations and include MSS activities.

2. Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310

3. Totals are given for informational purposes only and do not constitute emission limits.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT



A Permit Is Hereby Issued To
Air Liquide Large Industries U.S. LP
Authorizing the Construction and Operation of
Cogeneration Plant
Located at **Pasadena, Harris County, Texas**
Latitude 29° 31' 21" Longitude 095° 02' 45"

Permit: 9346 and PSDTX612M1

Revision Date : July 19, 2013

Renewal Date: August 1, 2021


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)]
- 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)]
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.

SPECIAL CONDITIONS

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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," and those sources are limited to the emission limits and other conditions specified in that attached table. Standard Permit Nos. 55810 and 75225 are hereby incorporated by reference into this permit. **(PSD/State)**
2. This facility shall comply with all requirements of the U.S. Environmental Protection Agency (EPA) Regulations on Standards of Performance for New Stationary Sources promulgated for stationary gas turbines in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subparts A and GG. **(PSD/State)**
3. The maximum heat input of fuel fired in each heat recovery steam generator shall be 165.9 million British thermal units per hour (MMBtu/hr). **(PSD/State)**
4. Emissions of nitrogen oxides (NO_x) from the firing of fuel in the heat recovery steam generators shall not exceed 0.12 pound per MMBtu heat input. **(PSD/State)**
5. Natural gas and other fuel gases fired in the gas turbines and heat recovery steam generators shall contain no more than 0.25 grain of hydrogen sulfide and no more than 5.0 grains of total sulfur per 100 standard cubic feet of gas. **(PSD/State)**
6. Upon request by the Executive Director of the Texas Commission on Environmental Quality (TCEQ) or any local air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuel(s) utilized in this facility or shall allow air pollution control agency representatives to obtain a sample for analysis. **(PSD/State)**
7. Sampling ports and platform(s) shall be incorporated into the design of each heat recovery steam generator stack 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 Executive Director of the TCEQ. **(PSD)**
8. The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from each heat recovery steam generator stack at the maximum heat input rate to the turbine and the heat recovery steam generator.
 - A. The TCEQ Regional Office in the region where the source is located shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting. 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 deviations from the TCEQ or EPA sampling procedures shall be made available to the TCEQ at or prior to the pretest meeting. The holder of this permit is also

SPECIAL CONDITIONS

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responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

The notice to the TCEQ Regional Office 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.
- B. Air contaminants to be tested for include (but are not limited to) NO_x, carbon monoxide, and particulate matter (PM). Test methods to be used are found in 40 CFR Part 60, Appendix A.
- C. Sampling shall occur within 60 days after the facilities achieve maximum production, but not later than 180 days after initial start-up of the facilities and at such other times as may be required by the Executive Director of the TCEQ.
- D. Two copies of the final sampling report shall be forwarded to the TCEQ within 30 days after sampling is completed. The reports shall be distributed as follows:
- One copy to the appropriate TCEQ Regional Office.
 - One copy to each appropriate local air pollution control program. **(PSD)**
9. Sampling for PM as required in Special Condition No. 8 may be waived by the Executive Director of the TCEQ for three of the four gas turbines covered by this permit when firing natural gas, provided that one gas turbine is sampled for PM when firing natural gas and the emission of PM does not exceed the value shown on the attached maximum allowable emission rate table. **(PSD)**
10. The permit holder shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) to measure and record the in-stack concentration of NO_x from emission point numbers CG-801, CG-802, CG-803, and CG-804.
- 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 40 CFR Part 60, Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Permitting and Registration, Air Permits Division for requirements to be met. Compliance with the continuous emissions monitoring requirements of 40 CFR Part 60 above can be demonstrated by meeting the applicable requirements of 40 CFR Part 75

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provided that the holder of this permit demonstrates compliance with all applicable New Source Performance Standard emission standards.

- B. The permit holder shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, ' 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.

Each monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit (RATA) is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.

All CGA exceedances of ± 15 percent accuracy indicate the CEMS is out of control and necessary corrective action shall be taken to eliminate the problem.

- C. The monitoring data shall be reduced to hourly average concentrations at least once every day. The individual average concentrations shall be reduced to units of pounds per hour at least once every day.

Except for any operating hour in which required maintenance or quality-assurance activities are performed, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, i.e., one data point in each of the 15-minute quadrants of the hour.

Except for any operating hour in which required maintenance or quality-assurance activities are performed, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.

For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.

The monitoring data and quality-assurance data shall be maintained by the source. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.

The appropriate TCEQ Regional Office shall be notified at least 15 days prior to any required RATA in order to provide them the opportunity to observe the testing.

SPECIAL CONDITIONS

Permit Numbers 9346 and PSDTX612M1

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Quality-assured (or valid) data shall be generated when the turbines are operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the turbines operated over the reporting period, as defined in 40 CFR Part 60, § 60.7. The measurements missed shall be estimated using engineering judgment and the methods used recorded. Options to increase system reliability to an acceptable value, including a redundant CEMS, may be required by the TCEQ Regional Manager.

11. The following records, written or electronic, shall be maintained at the plant site on a five-year rolling basis and be made readily available at the request of personnel from the TCEQ or any air pollution control agency with jurisdiction:
 - A. Records of NO_x CEMS emissions data to demonstrate compliance with the emission rates listed in the MAERT; and
 - B. Raw data files of all CEMS data including calibration checks and adjustments and maintenance performed on these systems.

Dated August 1, 2011

Emission Sources - Maximum Allowable Emission Rates

Permit Number 9346 and PSDTX612M1

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	TPY (4)
CG801	Turbine HRSG Stack (6)	NO _x (5)	170.21	745.52
		CO (5)	24.20	106.00
		VOC	8.10	35.50
		SO ₂ (5)	31.30	137.20
		PM (5)	11.50	50.40
CG802	Turbine HRSG Stack (6)	NO _x (5)	170.21	745.52
		CO (5)	24.20	106.00
		VOC	8.10	35.50
		SO ₂ (5)	31.30	137.20
		PM (5)	11.50	50.40
CG803	Turbine HRSG Stack (6)	NO _x (5)	170.21	745.52
		CO (5)	24.20	106.00
		VOC	8.10	35.50
		SO ₂ (5)	31.30	137.20
		PM (5)	11.50	50.40
CG804	Turbine HRSG Stack (6)	NO _x (5)	170.21	745.52
		CO (5)	24.20	106.00
		VOC	8.10	35.50
		SO ₂ (5)	31.30	137.20
		PM (5)	11.50	50.40

Emission Sources - Maximum Allowable Emission Rates

- (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) 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; total particulate matter includes both filterable and condensable ("back half") PM
- CO - carbon monoxide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) These emissions are permitted under both PSDTX612M1 and State Permit No. 9346.
- (6) The EPNs covered by this permit are also subject to two Standard Permits (SP) for Pollution Control Projects (Nos. 55810 and 75225). The referenced SPs authorize decreases to the NO_x emission rate and increases to the CO emission rate for the facility authorized by this New Source Review Permit.

Date: July 19, 2013



**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT**



A Permit Is Hereby Issued To
Air Liquide Large Industries U.S. LP
Authorizing the Construction and Operation of
Cogeneration Plant
Located at **Pasadena, Harris County, Texas**
Latitude 29° 37' 21" Longitude 095° 02' 45"

Permit: 9346 and PSDTX612M2

Amendment Date : September 5, 2013

Renewal Date: August 1, 2021


For the Commission

1. **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)]
2. **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)]
3. **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)]
4. **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)]
5. **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)]
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.

Special Conditions

Permit Numbers 9346 and PSDTX612M2

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. This permit amendment authorizes the construction and operation of four replacement turbines and three boilers. Permit No. 56212 that authorizes the existing boilers and the version of this permit (Permit No. 9346), including the MAERT, in effect prior to the issuance of this amendment shall continue to authorize and define the limitations of the existing turbines and boilers until they are replaced, with the exception of additional operational limitations that also apply during the construction phases identified in Special Condition No. 22 of this amendment. **(9/13)**

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.

Federal Applicability

2. Affected facilities shall comply with applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources (NSPS), Title 40 Code of Federal Regulations (40 CFR) Part 60: **(9/13)**
 - A. Subpart A: General Provisions.
 - B. Subpart Db: Standards of Performance for Industrial-Commercial-institutional Steam Generating Units.
 - C. Subpart KKKK: Standards of Performance for Stationary Combustion Turbines.

Emission Standards and Operating Specifications

3. This permit authorizes four General Electric 7EA combustion turbines (CTs) operating with a heat recovery steam generator (HRSG) with duct burners. The CTs may employ wet compression on the turbine inlets for no more than 1,000 hours per year. The CTs are authorized for planned MSS as described in Attachment B, subject to the conditions of this permit and the representations in the permit application. During periods of planned MSS activities, the CTs shall be limited to the MAERT limits specified for MSS described in this permit. Emissions

during CT only operations and emission during CT and duct burner firing operations shall not exceed the limits that are listed below, except during periods of planned MSS activities. **(9/13)**

Concentration Limits for CT Only Firing During Non-MSS Operations

Pollutant	Limit	Averaging time
Nitrogen oxides (NO _x)	5.0 ppmvd ¹	3-hour rolling average
Carbon monoxide (CO)	15.0 ppmvd ¹	3-hour rolling average
Volatile organic compounds (VOC) ²	0.002 lb/MMBtu ³	3- hour average

Concentration Limits for CT and Duct Burner Firing During Non-MSS Operations

Pollutant	Limit	Averaging time
Nitrogen oxides (NO _x)	7.0 ppmvd ¹	3-hour rolling average
Carbon monoxide (CO)	20.0 ppmvd ¹	3-hour rolling average
Volatile organic compounds (VOC) ²	0.006 lb/MMBtu ³	3- hour average

Note: ¹ ppmvd is parts per million on a dry basis at 15% O₂

² Defined as total hydrocarbons minus methane and ethane, calculated as methane. Also applies to VOC in Special Condition No. 6.

³ lb/MMBtu is pounds per million British thermal units

4. Fuel for the CT, duct burners, and boilers are subject to the following limitations: **(9/13)**
 - A. Pipeline-quality natural gas and fuel gas from neighboring facilities that contains no more than 0.25 grain of total sulfur per 100 dry standard cubic foot (dscf) on an annual basis. The sulfur content shall be monitored pursuant to 40 CFR 60 Subpart KKKK.

- B. Firing of any other fuel will require authorization from the TCEQ Air Permits Division.
 - C. Upon request by representatives of the Texas Commission on Environmental Quality (TCEQ), EPA, or any local air pollution control program having jurisdiction, the permit holder shall provide a sample and/or an analysis of the fuel fired or shall allow air pollution control agency representatives to obtain a sample for analysis.
5. The duct burners are subject to the following limitations:
- A. The maximum heat input of fuel fired in each heat recovery steam generator shall not exceed 166 MMBtu/hr.
 - B. Emissions of nitrogen oxides (NO_x) from the firing of fuel in the heat recovery steam generators shall not exceed 0.12 pound per MMBtu heat input.
6. The new boilers are subject to the following limitations: **(9/13)**
- A. Emissions shall not exceed the following limits on a three-hour average, except while operating on hot standby (firing less than 30 MMBtu/hr) and during periods of planned MSS:

Boiler Concentration Limits

Pollutant	Limit
NO _x	0.01 lb/MMBtu
CO	50 ppmvd at 3% O ₂
NH ₃	10 ppmvd at 3% O ₂
VOC	0.004 lb/MMBtu

- B. Each boiler is limited to a maximum heat input of 550 MMBtu/hr, based on the higher heating value of the natural gas.
- C. When all four turbines are operational, the maximum combined hourly heat input to all three new boilers shall not exceed 825 MMBtu/hr.
- D. When three turbines are operational (any single turbine is not operating) the maximum combined hourly heat input to all three new boilers shall not exceed 1,650 MMBtu/hr.

- E. The combined annual heat input to all three new boilers and all four new turbines (excludes heat input to duct burners) shall not exceed 40,437,912 MMBtu/year.
 - F. Special Condition No. 6C and 6E do not apply during Phase 1 and 2 of the replacement project. Special Condition No 6C and 6E become effective in Phase 3 of the replacement project.
7. Except during planned MSS activities, the opacity shall not exceed five percent averaged over a six-minute period from the stack (EPN CG801, CG802, CG803, CG804, BO1, BO2, and BO3). During MSS activities, the opacity shall not exceed 15 percent averaged over a six-minute period. Each determination 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 mile from the emission point. If visible emissions are observed from an emission point, then the opacity shall be determined and documented within 24 hours of observing the visible emissions for that emission point using 40 CFR Part 60, Appendix A, Test Method 9. Contributions from uncombined water shall not be included in determining compliance with this condition. Observations shall be performed and recorded quarterly. If the opacity exceeds five percent during normal operations or 15 percent during MSS activities, corrective action to eliminate the source of visible emissions shall be taken promptly and documented within one week of first observation. **(9/13)**

Ammonia Handling

8. The aqueous NH₃ storage and delivery system is subject to the following requirements. **(9/13)**
- A. The permit holder shall maintain loss prevention and protection measures for the storage system. The storage tank area must be marked and protected so as to protect the area from accidents that could cause a rupture.
 - B. Stored NH₃ must have a concentration of less than 29% NH₃ by weight.
 - C. All operating practices and procedures relating to the handling and storage of NH₃ shall conform to the safety recommendations specified for that compound by guidelines of the American National Standards Institute and the Compressed Gas Association.

9. The permit holder shall maintain the piping and valves in NH₃ service as follows: **(9/13)**
 - A. Audio, visual, and olfactory (AVO) checks for NH₃ leaks shall be made once a day.
 - B. As soon as possible, following the detection of a leak, plant personnel shall take one or more of the following actions:
 - (1) Locate and isolate the leak, if necessary.
 - (2) Commence repair or replacement of the leaking component.
 - (3) Use a leak collection or containment system to control the leak until repair or replacement can be made if immediate repair is not possible.

Maintenance, Startup, and Shutdown (MSS)

10. This permit authorizes the emissions from the planned MSS activities listed in Attachment A, Attachment B, and the maximum allowable emission rates table (MAERT) attached to this permit. Attachment A identifies the inherently low emitting (ILE) planned maintenance activities that this permit authorizes to be performed. Attachment B identifies the planned maintenance activities that are non-ILE planned maintenance activities that this permit authorizes to be performed. **(9/13)**
11. The holder of this permit shall minimize emissions during planned MSS activities by operating the facility and associated air pollution control equipment in accordance with good air pollution control practices, safe operating practices, and protection of the facility. **(9/13)**
12. Emissions during MSS activities will be minimized by limiting the duration of operation in planned MSS modes as follows: **(9/13)**
 - A. CTs/Duct Burners
 - (1) Planned startup of each CT is defined as the period that begins when the data acquisition and handling system (DAHS) measures fuel flow to the CT and ends when the CT generator (CTG) load reaches 60%. A planned startup for each CT is limited to 240 minutes per event. At the conclusion of the startup period (the CTG load reaches 60% or 240 minutes,

whichever comes first), the permit holder shall comply with the emission concentration limitations in Special Condition No. 3 and the normal operation emission rates in the MAERT.

- (2) A planned shutdown of each CT is defined as the period that begins when the CTG output drops below 60% load and ends when there is no longer measurable fuel flow to the CT. A planned shutdown for each CT is limited to 60 minutes per event.
- (3) Emissions from boiler and turbine optimization and tuning activities, identified in Attachment B, shall be subject to the hourly emission limits for MSS activities listed on the MAERT. The emissions from such activities shall not exceed the hourly emission limits listed on the MAERT for normal (non-MSS) operations for more than sixteen hours per calendar year.

B. Boilers

- (1) A planned startup is defined as the period that begins when the DAHS detects measurable fuel flow to the boiler and ends when the boiler reaches hot standby or the fuel flow at which the boiler will operate. A planned startup is limited to 240 minutes per event.
 - (2) A planned shutdown is defined as the period that begins when the boiler drops below the hot standby fuel flow level and ends when no fuel flow is detected. A planned shutdown is limited to 60 minutes per event.
13. The CO mass emissions limits in the MAERT attached to this permit that apply during planned MSS activities constitute alternative case specific specifications for the CO and concentration limits in Title 30 Texas Administrative Code (30 TAC) Chapter 117.310(c) during planned MSS activities. **(9/13)**
 14. Compliance with the emissions limits for planned MSS activities identified in the MAERT attached to this permit shall be demonstrated as follows. **(9/13)**
 - A. For ILE planned maintenance activities identified in Attachment A of this permit:
 - (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 application.

- (2) The permit holder shall annually confirm the continued validity of the estimated potential to emit represented in the permit application for all ILE planned maintenance activities.
- B. For planned MSS activities identified in Attachment B of this permit, the permit holder shall do the following.
- (1) For each pollutant whose emissions are measured with a CEMS that has been certified to measure the pollutant's emissions over the entire range of a planned MSS activity, the permit holder shall measure the emissions of the pollutant during the planned MSS activity using the CEMS.
 - (2) For each pollutant whose emissions are not measured with a CEMS in accordance with B.(1) of this condition, determine for each calendar month the emissions of each pollutant listed on the MAERT of this permit from all occurrences of planned MSS activity by calculation. The calculations of the pollutant's hourly and monthly emissions must use data related to the planned MSS activity, identified in turbine operating records, work orders, or equivalent records. The emission rate of the pollutant during the planned MSS activity must be determined either:
 - (a) as represented in the permit application; or
 - (b) as determined with an appropriate method, including but not limited to any of the following methods, provided that the permit holder maintains appropriate records supporting such determination:
 - i. use of emission factor(s), facility-specific parameter(s), and/or engineering knowledge of the facility's operations;
 - ii. use of emissions data measured (by a CEMS or during emissions testing) during the same type of planned MSS activity occurring at or on a similar facility, and correlation of that data with the activity's or facility's relevant operating parameters;
 - iii. use of emissions testing data collected during a planned MSS activity occurring at or on the facility, and correlation of that data with the facility's or activity's relevant operating parameters, such as electric load, temperature, fuel input, or fuel sulfur content; or

- iv. use of parametric monitoring system data applicable to the facility.

Initial Determination of Compliance

15. The permit holder shall perform stack sampling and other testing as required to establish the actual quantities of air contaminants being emitted into the atmosphere from the four new turbines and three new boilers (EPN CG801, CG802, CG803, CG804, BO1, BO2, and BO3.) Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with EPA Test Methods or by other equivalent methods approved by the TCEQ Regional Director. **(9/13)**

Fuel sampling using the methods and procedures of 40 CFR § 60.4415 may be conducted in lieu of stack sampling for sulfur dioxide (SO₂). 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 his designated representative shall be afforded the opportunity to observe all such sampling.

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

- A. The TCEQ 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.
 - (7) A description of how stack sampling will be conducted in order to demonstrate compliance with emission standards found in 40 CFR Part 60, Subparts DB and KKKK.

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 the TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for NSPS testing which must have EPA approval shall be submitted to the TCEQ Air Permits Division.

- B. Air contaminants to be sampled and analyzed from each of the turbines, EPN CG801, CG802, CG803, and CG804, include (but are not limited to) NO_x, CO, VOC, SO₂, opacity, total particulate matter (filterable and condensable) less than ten and two and a half microns in diameter.
- C. The turbine shall be tested at the maximum load for the atmospheric conditions which exist during testing. Each turbine shall be tested while the duct burners are not being fired to demonstrate compliance with the turbine performance standards in Special Condition No. 3. The tested turbine load shall be identified in the sampling report.
- D. Each of the boilers, EPN BO1, BO2, and BO3, shall be tested at their maximum firing rate for; NO_x, CO, VOC, NH₃, SO₂, opacity, total particulate matter (filterable and condensable) less than ten and two and a half microns in diameter.
- E. Sampling as required by this condition shall occur within 60 days after achieving the maximum production rate at which the turbine or boiler will be operated, but no later than 180 days after initial startup of each unit. Additional sampling may be required by the TCEQ or EPA.
- F. Within 60 days after the completion of the testing and sampling required herein, two copies of the sampling reports shall be distributed as follows:
 - (1) One copy to the TCEQ Air Permits Division in Austin.
 - (2) One copy to the TCEQ Regional Office.

Continuous Determination of Compliance

16. The permit holder shall install, calibrate, operate, and maintain a CEMS to measure and record the concentrations of NO_x, CO, and diluent (O₂ or carbon dioxide) from the exhaust stacks of EPN CG801, CG802, CG803, CG804, BO1, BO2, and BO3. **(9/13)**
 - A. The NO_x and diluent 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 specifications in 40 CFR Part 75, Appendices A and B. The requirements of 40 CFR Part 75, Appendices A and B are deemed an acceptable alternative to the performance specifications and quality assurance requirements of 40 CFR Part 60.
 - B. The CO 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 specifications in 40 CFR Part 60, Performance Specification No. 4. The CEMS shall meet the applicable quality assurance requirements specified in 40 CFR Part 60, Appendix F, except that cylinder gas audits (CGA) conducted in all four quarters may be used in lieu of the annual relative accuracy test audit. Quarterly CGAs shall be conducted at least 60 days apart. A CGA is not required in any quarter in which the CT or boiler operates less than 168 hours. Relative accuracy exceedances (as specified in 40 CFR 60, Appendix F), CGA exceedances of ±15% accuracy, and any CO CEMS downtime shall be reported to the TCEQ Houston Regional Director, and necessary corrective action shall be taken. Supplemental stack sampling may be required at the discretion of the TCEQ Houston Regional Director.
 - C. The CEMS shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification.
 - D. For full operating hours, the monitoring data must be reduced to hourly average values at least once every day, using a minimum of four, and normally 60, approximately equally-spaced data points from each one-hour period. For hours in which calibration checks, zero and span adjustments, system breakdowns, or repairs occur, at least two valid data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour) will be sufficient to quality-assure the hour.

- E. The valid hourly average data from the CEMS, in conjunction with the hourly average natural gas fuel consumption data required by Special Condition No. 18, may be used to determine compliance with the concentration and emission limits of Special Condition No. 3 and 6 and with the hourly emission rate in the MAERT. Pounds per hour data from each EPN identified above must be summed monthly to tons per year and used to determine compliance with the annual emission limits of the MAERT.
17. The NH₃ concentration from the boiler exhaust stacks EPN BO1, BO2, and BO3 shall be tested or calculated according to one of the methods listed below and shall be tested or calculated according to frequency listed below. Testing for NH₃ slip is only required on days when the selective catalytic reduction (SCR) unit is in operation. **(9/13)**
- A. The permit holder may install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of NH₃. Each ammonia CEMS shall be audited at least once each calendar quarter.
- B. As an approved alternative, the NH₃ slip may be measured using a sorbent or stain tube device specific for NH₃ measurement in the 5 to 10 ppm range. The frequency of sorbent/stain tube testing shall be daily for the first 60 days of operation, after which, the frequency may be reduced to weekly testing if operating procedures have been developed to prevent excess amounts of urea from being introduced in the SCR unit and when operation of the SCR unit have been proven successful with regard to controlling NH₃ slip. Daily sorbent or stain tube testing shall resume when the catalyst is within 30 days of its useful life expectancy. These results shall be recorded and used to determine compliance with Special Condition No. 6.

If the sorbent or stain tube testing indicates an ammonia slip concentration exceeds 10 ppm for a consecutive one-hour period or the average of one or more sorbent or stain tube tests in an hour, the permit holder shall begin NH₃ testing by either the Phenol Nitroprusside Method, the Indophenol Method, or the EPA Conditional Test Method (CTM) 27 on a quarterly basis, in addition to the weekly sorbent or stain tube testing. The quarterly testing shall continue until such time as the SCR unit catalyst is replaced; or if the quarterly testing indicates NH₃ slip is 7 ppm or less, the Phenol-Nitroprusside/Indophenol/CTM 27 tests may be suspended until sorbent/stain tube testing again indicate 10 ppm NH₃ slip or greater. These results shall be recorded and used to determine compliance with Special Condition No. 6.

- C. As an approved alternative to sorbent or stain tube testing, NH₃ CEMS, or a second NO_x CEMS, the permit holder may 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 a 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 difference between the two NO_x CEMS readings (converted and unconverted). These results shall be recorded and used to determine compliance with Special Condition No. 6.
 - D. Any other method used for measuring NH₃ slip shall require prior approval from the TCEQ.
18. The permit holder shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the average hourly natural gas consumption of the turbines and boilers. The permit holder shall comply with the initial certification and quality assurances as specified in 40 CFR Part 60 (boilers) and 75 (turbines). **(9/13)**

Recordkeeping Requirements

19. The following records shall be kept at the plant for the life of the permit and shall be made available upon request by representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction: **(9/13)**
- A. A copy of this permit.
 - B. The permit application dated July 2012 and subsequent representations submitted to the TCEQ.
 - C. A complete copy of the testing reports and records of the initial performance testing completed pursuant to Special Condition No. 15 to demonstrate initial compliance.
 - D. Stack sampling results or other air emissions testing (other than CEMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.
20. The following information shall be maintained by the permit holder in a form suitable for inspection for a period of five years after collection and shall be made available upon request by representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction: **(9/13)**

- A. For pollutants that are monitored by CEMS, hourly records of emissions and operations to demonstrate compliance with the applicable performance standards of NSPS Subpart KKKK and Db, the concentration limits of Special Condition No. 3, and 6, and the hourly and annual emission rates listed in the MAERT, as follows.
 - (1) Continuous emission monitoring data for NO_x, CO, diluent gases, O₂ or CO₂, and if applicable, NH₃. Data retention at intervals less than one hour is not required. Records should identify the times when emissions data have been excluded from the calculation of average emission rates because of MSS or malfunction along with the justification for excluding data. Records should also identify factors used in calculations that are used to demonstrate compliance with emission limits and performance standards.
 - (2) Files of all CEMS quality assurance measures, calibration checks, adjustments and maintenance performed on these systems to demonstrate compliance with Special Condition No. 16.
- B. Records of visible emission/opacity observations and date and description of corrective actions taken pursuant to Special Condition No. 7.
- C. Records of fuel usage of the boiler to demonstrate compliance with Special Condition Nos. 5, 6, and 18.
- D. Records necessary to demonstrate compliance with the applicable NSPS identified in Special Condition No. 2, including fuel purchase records, copies of gas supply contracts, test results, or other information to demonstrate compliance with the SO₂ emission limits of NSPS Subpart KKKK and fuel sulfur limits of Special Condition No. 4.
- E. Records of audio, olfactory, and visual checks for ammonia leaks and maintenance performed to any piping and valves in NH₃ service to show compliance with Special Condition No. 9. In addition, written records of any accidental releases, spills, or venting of NH₃ and the corrective action taken.
- F. As applicable, records of NH₃ emissions sampling and calculations pursuant to Special Condition No. 17.
- G. Records of planned MSS activities including; the date, time, and duration of those activities, emissions from those activities, and periods when CEMS data

have been excluded for purposes of demonstrating compliance with Special Condition Nos. 3, 6, 12, 13, and 14.

Reporting

21. The permit holder shall submit to the TCEQ Regional Office and the Air Enforcement Branch of EPA in Dallas reports as described in 40 CFR § 60.7 for each emission unit which is required to be continuously monitored pursuant 40 CRF § 60. **(9/13)**

Construction Schedule and Interim Operational Limitation

22. The current permit authorizes the operation of four gas turbines and associated duct burners. This permit amendment authorizes the construction and operation of four replacement turbines and three boilers. The version of this permit, including the MAERT, in effect prior to the issuance of this amendment shall continue to authorize and define the limitations of the existing turbines and existing boilers, until the replacement project is completed, with the exception of additional operational limitations that also apply during the construction phases identified below. The phases of the construction project identified in the permit application are as follows. **(9/13)**

Phase 1 commences upon start of construction of the three new boilers. Phase 1 only includes the construction of the three new boilers and does not include construction of the four new turbines. Phase 1 is complete when construction on the three new boilers has concluded.

Phase 2 involves the decommissioning, removal and replacement of each of the four existing turbines. Replacement of the existing turbines is anticipated to occur one turbine at a time, but may involve some concurrent overlapping construction and decommissioning activities involved several turbines. Phase 2 is complete when all four existing turbines have been replaced and decommissioned.

Phase 3 commences upon completion of Phase 2 and involves the permanent shutdown and decommissioning of the three existing boilers. Phase 3 is complete when the three existing boilers have been decommissioned.

The additional operation limitations apply in phase 2 of construction, after the three new boilers have been constructed and before the four existing turbines and three existing boilers have been permanently shutdown. If any one of the four

existing turbines have been shutdown for replacement, then all six boilers (three new and three existing boilers) may be available for operation simultaneously, with a restriction that the three new boilers will operate with a maximum heat input (combined for all three new boilers) not to exceed 990 MMBtu/hour and 8,672,400 MMBtu per year. If two or more of the existing turbines is offline during the interim period, all six boilers (three new and three existing boilers) may operate at full fire in order to meet contractual steam demand. The additional operational limits will exist until the end of phase 2 when all four existing turbines have been replaced and decommissioned. The four (new or existing) turbines, three new boilers, and the three existing boilers are not allowed to all operate simultaneously at any time during the three construction phases.

Date: September 5, 2013

Attachment A

Permit Nos. 9346 and PSDTX612M2

Inherently Low Emitting Planned Maintenance Activities					
Planned Maintenance Activity	Emissions				
	NO _x	CO	VOC	PM	NH ₃
Line breaks ¹			X		
Turbine washing, unit on-line ²				X	
Catalyst handling and maintenance ³				X	
Inspect, repair, replace, adjusting, testing, and calibration of analytical equipment, process instruments including sight glasses, meters, gauges				X	
Boiler tube cleaning			X	X	
CEMS calibration	X	X			X
Miscellaneous particulate filter maintenance				X	
Water based washing				X	
Management of sludge from pits, ponds, sumps, and water conveyances			X	X	
Brazing, soldering and welding				X	

Notes:

¹Includes, but is not limited to, fugitive components and gaseous fuel venting the will happen for pump, filter, and valve maintenance.

²Involves use of water only.

³Includes but not limited to, replacement, cleaning, activation, and deactivation of catalysts.

Date: September 5, 2013

Attachment B

Permit Nos. 9346 and PSDTX612M2

Non-Inherently Low Emitting Planned MSS Activities							
Planned Maintenance Activity	EPN	Emissions					
		NO _x	CO	VOC	PM	NH ₃	SO ₂
Boiler and turbine optimization and tuning ¹ following maintenance	CG801, CG802, CG803, CG804, BO1, BO2, and BO3	X	X	X	X	X	X
SCR maintenance, unit on-line	BO1, BO2, and BO3	X				X	
Planned startups and shutdowns	CG801, CG802, CG803, CG804, BO1, BO2, and BO3	X	X	X	X	X	X

Notes:

¹Includes, but is not limited to:

- (i) leak and operability checks (e.g. CT overspeed trip testing, troubleshooting);
- (ii) generator balancing; and
- (iii) tuning activities that occur during seasonal tuning or after the completion of initial construction, a combustor change-out, a major repair, maintenance to a combustor, or other similar circumstances.

Date: September 5, 2013

Emission Sources - Maximum Allowable Emission Rates

Permit Number 9346 and PSDTX612M2

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 (4) (5)	TPY (4) (6)
CG801	Replacement Gas Turbine Only	NO _x	17.46	76.48
		NO _x (7)	170.00	-
		CO	31.89	139.67
		CO (7)	450.00	-
		VOC	1.89	8.26
		VOC (7)	15.5	-
		SO ₂	0.66	2.91
		PM	4.50	19.71
		PM ₁₀	4.50	19.71
		PM _{2.5}	3.90	17.08
		H ₂ SO ₄	0.07	0.29
		HAPs	0.60	-
CG802	Replacement Gas Turbine Only	NO _x	17.46	76.48
		NO _x (7)	170.00	-
		CO	31.89	139.67
		CO (7)	450.00	-
		VOC	1.89	8.26
		VOC (7)	15.5	-
		SO ₂	0.66	2.91

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4) (5)	TPY (4) (6)
		PM	4.50	19.71
		PM ₁₀	4.50	19.71
		PM _{2.5}	3.90	17.08
		H ₂ SO ₄	0.07	0.29
		HAPs	0.60	-
CG803	Replacement Gas Turbine Only	NO _x	17.46	76.48
		NO _x (7)	170.00	-
		CO	31.89	139.67
		CO (7)	450.00	-
		VOC	1.89	8.26
		VOC (7)	15.5	-
		SO ₂	0.66	2.91
		PM	4.50	19.71
		PM ₁₀	4.50	19.71
		PM _{2.5}	3.90	17.08
		H ₂ SO ₄	0.07	0.29
		HAPs	0.60	-
CG804	Replacement Gas Turbine Only	NO _x	17.46	76.48
		NO _x (7)	170.00	-
		CO	31.89	139.67
		CO (7)	450.00	-
		VOC	1.89	8.26
		VOC (7)	15.5	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4) (5)	TPY (4) (6)
		SO ₂	0.66	2.91
		PM	4.50	19.71
		PM ₁₀	4.50	19.71
		PM _{2.5}	3.90	17.08
		H ₂ SO ₄	0.07	0.29
		HAPs	0.60	-
CG801	Replacement Gas Turbine and Duct Burner Firing	NO _x	18.68	81.83
		NO _x (7)	171.22	-
		CO	38.53	168.74
		CO (7)	456.64	-
		VOC	2.55	11.17
		VOC (7)	16.16	-
		SO ₂	0.76	3.34
		PM	5.74	25.12
		PM ₁₀	5.74	25.12
		PM _{2.5}	5.14	22.50
		H ₂ SO ₄	0.08	0.33
		HAPs	0.91	-
CG802	Replacement Gas Turbine and Duct Burner Firing	NO _x	18.68	81.83
		NO _x (7)	171.22	-
		CO	38.53	168.74
		CO (7)	456.64	-
		VOC	2.55	11.17

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4) (5)	TPY (4) (6)
		VOC (7)	16.16	-
		SO ₂	0.76	3.34
		PM	5.74	25.12
		PM ₁₀	5.74	25.12
		PM _{2.5}	5.14	22.50
		H ₂ SO ₄	0.08	0.33
		HAPs	0.91	-
CG803	Replacement Gas Turbine and Duct Burner Firing	NO _x	18.68	81.83
		NO _x (7)	171.22	-
		CO	38.53	168.74
		CO (7)	456.64	-
		VOC	2.55	11.17
		VOC (7)	16.16	-
		SO ₂	0.76	3.34
		PM	5.74	25.12
		PM ₁₀	5.74	25.12
		PM _{2.5}	5.14	22.50
		H ₂ SO ₄	0.08	0.33
		HAPs	0.91	-
CG804	Replacement Gas Turbine and Duct Burner Firing	NO _x	18.68	81.83
		NO _x (7)	171.22	-
		CO	38.53	168.74
		CO (7)	456.64	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4) (5)	TPY (4) (6)
		VOC	2.55	11.17
		VOC (7)	16.16	-
		SO ₂	0.76	3.34
		PM	5.74	25.12
		PM ₁₀	5.74	25.12
		PM _{2.5}	5.14	22.50
		H ₂ SO ₄	0.08	0.33
		HAPs	0.91	-
BO1	New Boiler 1	NO _x	5.50	17.95
		NO _x (7)	165.00	-
		CO	20.35	66.41
		CO (7)	203.50	-
		VOC	2.20	7.18
		VOC (7)	22.00	-
		SO ₂	0.39	1.26
		PM	4.40	14.36
		PM ₁₀	2.75	8.97
		PM _{2.5}	1.65	5.38
		H ₂ SO ₄	0.04	0.13
		HAPs	1.02	-
BO2	New Boiler 2	NO _x	5.50	17.95
		NO _x (7)	165.00	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4) (5)	TPY (4) (6)
		CO	20.35	66.41
		CO (7)	203.50	-
		VOC	2.20	7.18
		VOC (7)	22.00	-
		SO ₂	0.39	1.26
		PM	4.40	14.36
		PM ₁₀	2.75	8.97
		PM _{2.5}	1.65	5.38
		H ₂ SO ₄	0.04	0.13
		HAPs	1.02	-
		NH ₃	2.47	8.07
BO3	New Boiler 3	NO _x	5.50	17.95
		NO _x (7)	165.00	-
		CO	20.35	66.41
		CO (7)	203.50	-
		VOC	2.20	7.18
		VOC (7)	22.00	-
		SO ₂	0.39	1.26
		PM	4.40	14.36
		PM ₁₀	2.75	8.97
		PM _{2.5}	1.65	5.38
		H ₂ SO ₄	0.04	0.13
HAPs	1.02	-		

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4) (5)	TPY (4) (6)
		NH ₃	2.47	8.07
CG801, CG802, CG803, CG804, BO1, BO2, BO3	Site-wide HAPs	Total HAPs	-	23.3
		Any single HAP	-	10.0
MSS-Fug	Maintenance Fugitive Emissions	VOC	16.2	0.04
Fug -Ammonia	Fugitive Ammonia Emissions	NH ₃	0.01	0.06

- (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) NO_x - total oxides of nitrogen
NH₃ - ammonia
SO₂ - sulfur dioxide
CO - carbon monoxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}
PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
H₂SO₄ - sulfuric acid
HAPs - Hazardous Air Pollutants
- (4) The pound per hour (lb/hr) and ton per year (tpy) emission limits specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities, unless otherwise noted.
- (5) For each pollutant whose emissions during planned MSS activities are measured using a CEMS, the MSS lb/hr limits apply only during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.
- (6) Compliance with annual emission limits is based on a rolling 12-month period.
- (7) MSS hourly emission limit only. The tpy emission limit specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.

Date: September 5, 2013

**PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
FOR GREENHOUSE GAS EMISSIONS
ISSUED PURSUANT TO THE REQUIREMENTS AT 40 CFR § 52.21**

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 6

PSD PERMIT NUMBER: PSD-TX-612-GHG

PERMITTEE: Air Liquide Large Industries U.S., L.P.

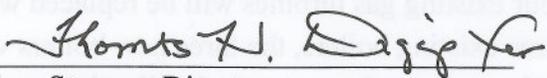
FACILITY NAME: Air Liquide Large Industries U.S., L.P.
Bayou Cogeneration Plant

FACILITY LOCATION: 11777 Bay Area Blvd.
Pasadena, Texas 77507

Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, Part C (42 U.S.C. Section 7470, *et. Seq.*), and the Code of Federal Regulations (CFR) Title 40, Section 52.21, and the Federal Implementation Plan at 40 CFR § 52.2305 (effective May 1, 2011 and published at 76 FR 25178), the U.S. Environmental Protection Agency, Region 6 is issuing a *Prevention of Significant Deterioration* (PSD) permit to Air Liquide Large Industries U.S., L.P. (Air Liquide) for Greenhouse Gas (GHG) emissions. The Permit applies to the redevelopment of its cogeneration facility at their Bayou Cogeneration Plant located in Pasadena, Texas.

Air Liquide is authorized to replace four (4) gas-fired gas turbines with similar units, add three (3) new gas-fired boilers and subsequently remove three (3) existing boilers as described herein, in accordance with the permit application (and plans submitted with the permit application), the federal PSD regulations at 40 CFR § 52.21, and other terms and conditions set forth in this PSD permit in conjunction with the corresponding Texas Commission on Environmental Quality (TCEQ) PSD permit No. PSD-TX-612M2. Failure to comply with any condition or term set forth in this PSD Permit may result in enforcement action pursuant to Section 113 of the Clean Air Act (CAA). This PSD Permit does not relieve Air Liquide of the responsibility to comply with any other applicable provisions of the CAA (including applicable implementing regulations in 40 CFR Parts 51, 52, 60, 61, 72 through 75, and 98) or other federal and state requirements (including the state PSD program that remains under approval at 40 CFR § 52.2303).

In accordance with 40 CFR §124.15(b)(3), this PSD Permit becomes effective immediately upon issuance of this final decision.


Wren Stenger, Director
Multimedia Planning and Permitting Division

11/21/13
Date

Air Liquide Large Industries U.S., L.P. (PSD-TX-612-GHG)
Prevention of Significant Deterioration Permit
For Greenhouse Gas Emissions
Final Permit Conditions

PROJECT DESCRIPTION

The redevelopment project at the Bayou Cogeneration Plant will replace components of the power block and the boilers at the existing facility. The power block project will replace the four existing gas turbines at the plant with new GE Frame 7EA gas turbines (which are closest in specification to the existing turbines and are closer to the maximum design thermal efficiency of the original plant).

The project does not include replacement of the Heat Recovery Steam Generators (HRSGs) or duct burners. The redevelopment project will also add three new 550 MMBtu/hr natural gas-fired boilers to the Bayou Cogeneration plant, and the subsequent shutdown of three existing 442.9 MMBtu/hr boilers at the plant. The new boilers will be controlled using Selective Catalytic Reduction (SCR) units for nitrogen oxides (NO_x) emissions.

The proposed project will be executed in three phases: no more than 18 months shall pass between the completion of a phase and the beginning of the subsequent phase: construction of the phases shall be continuous and completed in a reasonable timeframe:

- Phase 1 commences upon start of construction of the three new boilers. Phase 1 only includes the construction of the three new boilers and does not include construction of the four new turbines. Each of the three new boilers will be equipped with selective catalytic reduction (SCR) systems to reduce NO_x emissions to the atmosphere. The existing gas turbines and boilers will not be modified during this phase of the project and will continue to operate at currently permitted levels by the TCEQ PSD Permit PSD-TX-612M1; therefore, the only activity during this phase of the project will be the construction of the three new boilers. Phase 1 is complete when construction on the three new boilers has concluded.
- Phase 2 involves the decommissioning, removal and replacement of each of the four existing turbines. Replacement of the existing turbines is anticipated to occur one turbine at a time, but may involve some concurrent overlapping construction and decommissioning activities involving several turbines. During this phase, the four existing gas turbines will be replaced with new GE 7EA gas turbine units. In addition to the three existing boilers, the three new boilers will need to be operational and available to fulfill steam/thermal supply contractual obligations during this phase; however, at no point will the four new gas turbines, three new boilers, and three existing boilers operate simultaneously during Phase 2. Once an existing gas turbine has

been replaced with a new gas turbine, the new gas turbine will complete initial stack testing in accordance with Special Condition V.A.2. The emissions during this phase will not exceed the potential emissions from the overall project, including the CO₂ emissions. Additionally, Air Liquide will operate the equipment such that all emissions during this phase are less than the respective permit limits. Phase 2 is complete when all four existing turbines have been replaced and decommissioned and all new gas turbines have completed an initial stack test.

The additional operation limitations apply in Phase 2 of construction, after the three new boilers have been constructed and before the four existing turbines and three existing boilers have been permanently shutdown. If any one of the four existing turbines have been shut down for replacement, then all six boilers (three new and three existing boilers) may be available for operation simultaneously, with a restriction that the three new boilers will operate with a maximum heat input (combined for all three new boilers) not to exceed 990 MMBtu/hour and 8,672,400 MMBtu/year. If two or more of the existing turbines is offline during the interim period, all six boilers (three new and three existing boilers) may operate at full fire in order to meet contractual steam demand. The additional operational limits will exist until the end of phase 2 when all four existing turbines have been replaced and decommissioned. The four (new or existing) turbines, three new boilers, and the three existing boilers are not allowed to all operate simultaneously at any time during the three construction phases.

- Phase 3 commences upon completion of Phase 2 and involves the permanent shutdown and decommissioning of the three existing boilers. Phase 3 is complete when the three existing boilers have been decommissioned and mothballed. These boilers will not be removed.

EQUIPMENT LIST

The following devices are subject to this GHG PSD permit

FIN	EPN	Source Name
B-305 B-306 B-307	BO1 BO2 BO3	3 Boilers (Combustion Units) 550 MMBtu/hr (each) rated maximum heat input boilers with Selective Catalytic Reduction (SCR) controls
GT1 GT2 GT3 GT4	CG-801 CG-802 CG-803 CG-804	4 GE 7EA Turbines (Combustion Units) 948MMBtu/hr (each) rated heat input CHP turbines

I. GENERAL PERMIT CONDITIONS

A. PERMIT EXPIRATION

As provided in 40 CFR §52.21(r), this PSD Permit shall become invalid if construction:

1. is not commenced (as defined in 40 CFR §52.21(b)(9)) within 18 months after the approval takes effect; or
2. is not completed within a reasonable time.

This permit applies to a phased construction project. Each phase must commence construction within 18 months of the approved construction phase. Pursuant to 40 CFR § 52.21(r), EPA may extend the 18-month period upon a written satisfactory showing that an extension is justified.

B. PERMIT NOTIFICATION REQUIREMENTS

Permittee shall notify EPA Region 6 in writing or by electronic mail of the:

1. Date construction is commenced, postmarked within 30 days of such date;
2. Actual date of initial startup of each emission unit, as defined in 40 CFR § 60.2, postmarked within 15 days of such date;
3. Date upon which initial performance tests will commence, in accordance with the provisions of Section V, postmarked not less than 30 days prior to such date. Notification may be provided with the submittal of the performance test protocol required pursuant to Condition V.B;
4. Date upon which certification tests of the CO₂, O₂ continuous emission monitoring system (CEMS) will commence in accordance with 40 CFR § 75.61(a)(1)(i) and 40 CFR Part 60, Appendix B, Performance Specification 3. Additionally, the initial certification or recertification application shall be submitted for the CO₂ CEMS as required by 40 CFR 75.63; and,
5. Date the existing gas-fired boilers; ST-5, ST-6 and ST-7, are shutdown, decommissioned and permanently shut down at facility within 15 days of such date.

C. FACILITY OPERATION

At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the EPA, which may include, but is not

limited to monitoring results, review of operating maintenance procedures and inspection of the facility.

D. MALFUNCTION REPORTING

1. Permittee shall notify EPA by mail, or other means identified by EPA, within 48 hours following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which may result in an increase in GHG emissions above the allowable emission limits stated in Section II and III of this permit.
2. Within 10 days of the discovery of any GHG emissions above the allowable emission limits resulting from malfunctions as described in I.D.1., Permittee shall provide a written supplement to the initial notification that includes a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in Sections II and Section III, and the methods utilized to mitigate emissions and restore normal operations.
3. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or any law or regulation such malfunction may cause.

E. RIGHT OF ENTRY

EPA authorized representatives, upon the presentation of credentials, shall be permitted:

1. To enter the premises where the facility is located or where any records are required to be kept under the terms and conditions of this PSD Permit;
2. During normal business hours, to have access to and to copy any records required to be kept under the terms and conditions of this PSD Permit;
3. To inspect any equipment, operation, or method subject to requirements in this PSD Permit; and,
4. To sample materials and emissions from the source(s).

F. TRANSFER OF OWNERSHIP

In the event of any changes in control or ownership of the facilities to be constructed, this PSD Permit shall be binding on all subsequent owners and operators. Permittee shall notify the succeeding owner and operator of the existence of the PSD Permit and its conditions by letter; a copy of the letter shall be forwarded to EPA Region 6 within thirty days of the letter signature.

G. SEVERABILITY

The provisions of this PSD Permit are severable, and, if any provision of the PSD Permit is held invalid, the remainder of this PSD Permit shall not be affected.

H. ADHERENCE TO APPLICATION AND COMPLIANCE WITH OTHER ENVIRONMENTAL LAWS

Permittee shall construct this project in compliance with this PSD Permit, the application on which this permit is based, the TCEQ PSD Permit No. PSD-TX-612M2, and all other applicable federal, state, and local air quality regulations. This PSD permit does not release the Permittee from any liability for compliance with other applicable federal, state and local environmental laws and regulations, including the Clean Air Act.

I. ACRONYMS AND ABBREVIATIONS

BACT	Best Available Control Technology
Btu _(HHV)	British Thermal Unit
CAA	Clean Air Act
CC	Carbon Content
CCS	Carbon Capture and Sequestration
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CH ₄	Methane
CO ₂	Carbon Dioxide
CO _{2e}	Carbon Dioxide Equivalent
dscf	Dry Standard Cubic Foot
EF	Emission Factor
EPN	Emission Point Number
FR	Federal Register
GCV	Gross Calorific Value
GHG	Greenhouse Gas
gr	Grains
GWP	Global Warming Potential
HHV	High Heating Value
hr	Hour
kW	Kilowatt
kWh _(gross)	Gross Kilowatt-Hour
lb	Pound
LDAR	Leak Detection and Repair
MACT	Maximum Achievable Control Technology
MMBtu	Million British Thermal Units
MSS	Maintenance, Start-up and Shutdown
N ₂ O	Nitrous Oxides
ppmv	parts per million by volume
PSD	Prevention of Significant Deterioration
QA/QC	Quality Assurance and/or Quality Control
RATA	Relative Accuracy Test Audit
RCRA	Resource Conservation and Recovery Act
SCFH	Standard Cubic Feet per Hour
SCR	Selective Catalytic Reduction
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TPY	Tons per Year
USC	United States Code
VOC	Volatile Organic Compound

II. Emission Limits and Standards.

Annual emissions, in tons per year (TPY) on a 12-month total, rolling monthly, shall not exceed the following:

Table 1: Annual Emission Limits

EPN	FIN	Description	GHG Mass Basis		CO ₂ e TPY ^{1, 2}	BACT Requirements
				TPY ¹		
CG801	GT1	Combustion Turbine	CO ₂	485,112	485,588	7,720 Btu _(HHV) /kWh _{gross} equivalent based on a 365-day rolling average. See Permit Conditions at III.B.1.
			CH ₄	9.15		
			N ₂ O	0.91		
CG802	GT2	Combustion Turbine	CO ₂	485,112	485,588	7,720 Btu _(HHV) /kWh _{gross} equivalent based on a 365-day rolling average. See Permit Conditions at III.B.1.
			CH ₄	9.15		
			N ₂ O	0.91		
CG803	GT3	Combustion Turbine	CO ₂	485,112	485,588	7,720 Btu _(HHV) /kWh _{gross} equivalent based on a 365-day rolling average. See Permit Conditions at III.B.1.
			CH ₄	9.15		
			N ₂ O	0.91		
CG804	GT4	Combustion Turbine	CO ₂	485,112	485,588	7,720 Btu _(HHV) /kWh _{gross} equivalent based on a 365-day rolling average. See Permit Conditions at III.B.1.
			CH ₄	9.15		
			N ₂ O	0.91		
BO1	B-305	Boiler 1	CO ₂	209,750	209,957	117 lb CO ₂ per MMBtu heat input. Good combustion, operating and maintenance practices. See Permit Conditions at III.D.
			CH ₄	3.96		
			N ₂ O	0.40		
BO2	B-306	Boiler 2	CO ₂	209,750	209,957	117 lb CO ₂ per MMBtu heat input. Good combustion, operating and maintenance practices. See Permit Conditions at III.D.
			CH ₄	3.96		
			N ₂ O	0.40		
BO3	B-307	Boiler 3	CO ₂	209,750	209,957	117 lb CO ₂ per MMBtu heat input. Good combustion, operating and maintenance practices. See Permit Conditions at III.D.
			CH ₄	3.96		
			N ₂ O	0.40		
Totals³			CO₂	2,569,698	CO₂e 2,572,215	
			CH₄	48.5		
			N₂O	4.8		

1. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations and include MSS activities.
2. Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310
3. Totals are given for informational purposes only and do not constitute emission limits.

III. Special Permit Conditions

A. Combustion Turbines (EPNs: CG801, CG802, CG803, and CG804) Work Practice Standards, Operational Requirements, and Monitoring:

1. Permittee shall limit fuel for turbines (CG801, CG802, CG803, and CG804) to pipeline quality natural gas or a maximum of 90/10 ratio of pipeline quality natural gas blended with off-gas based on an annual average.
2. Natural gas quality fuels with the carbon content will be obtained by semiannual testing per 40 CFR§98.34(b)(3)(A). Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in turbine/duct burner (CG801, CG802, CG803, and CG804) at the time of the request, or shall allow a sample to be taken by EPA for analysis.
3. Permittee shall monitor fuel gas flow continuously; determine fuel higher heating value whenever there is a fuel change or monthly, whichever is less; and calculate the total daily heat input per turbine/duct burner combination.
4. Natural gas/off-gas flow meter shall be calibrated in accordance with 40 CFR§98.34(b)(1).
5. Flow meters shall meet the specification in 40 CFR 60 Appendix B Spec. 6.
6. All continuous emission monitors and flow meters shall meet the Quality Assurance Specifications in 40 CFR Appendix F.
7. Permittee shall not begin commercial operation of the fourth combustion turbine until the final steam boiler (EPNs: ST-5, ST-6, and ST-7) is decommissioned from service.
8. Each startup of each combustion turbine is defined as the period when the data acquisition and handling system (DAHS) measures fuel flow to the combustion turbine and ends when the combustion turbine generator (CTG) load reaches 60%. Each startup is limited to 240 minutes per event.
9. Each shutdown for each combustion turbine is defined as the period that begins when the CTG output drops below 60% load and ends when there is no longer measureable fuel flow to the combustion turbine. Each shutdown is limited to 60 minutes per event.
10. Permittee shall install, operate and maintain according to good engineering practices, a fuel preheater for each of the turbines (CG801, CG802, CG803, and CG804).
11. The emission limits established in Table 1 include emissions associated with MSS activities.
12. Permittee shall monitor and record the following parameters daily:
 - a. Natural gas consumed;
 - b. Net electricity produced;
 - c. Mass of high pressure steam produced;
 - d. Mass of low pressure steam produced;
 - e. Mass of feed water used;

- f. Average pressure and temperature of steam produced; and
 - g. Calculated average enthalpy for low and high pressure steam based on average steam conditions.
13. The combustion turbines shall be equipped with a CO₂ CEMS.
 14. Permittee shall calculate the CH₄ and N₂O emissions on a 12-month rolling basis to be updated by the last day of the following month. Permittee shall determine compliance with the CH₄ and N₂O emissions limits contained in this section using the default CH₄ and N₂O emission factors contained in Table C-2 and equation C-9a of 40 CFR Part 98 and the HHV (for natural gas and/or off-gas), converted to short tons.
 15. Permittee shall calculate the CO₂e emissions on a 12-month rolling basis, based on the procedures and Global Warming Potentials (GWP) contained in Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, as published on October 30, 2009 (74 FR 56395). The record shall be updated by the last day of the following month.

B. Combustion Turbines (EPNs: CG801, CG802, CG803, and CG804) BACT Limit:

1. Permittee shall maintain a turbine thermal efficiency as measured by calculating the fuel chargeable to power of 7,720 Btu_(HHV)/kWh_(gross) on a 365-day rolling average of the calculated daily thermal efficiency for each of the turbines: CG801, CG802, CG803, and CG804.
2. Compliance will be demonstrated by monitoring fuel gas flow, fuel higher heating value, and gross power production and calculating the thermal efficiency using these parameters on a daily basis
3. Permittee shall calculate turbine thermal efficiency daily for turbines (CG801, CG802, CG803, and CG804) as follows:

Equation 1 *Calculation of Fuel Chargeable to Power*

$$FCP = \frac{QGT - FCS}{P_{NET}}$$

Where: FCP = Fuel Chargeable to Power [Btu (HHV)/kWh]

QGT = Heat input to gas turbine [MMBtu/hr]

FCS = Fuel Chargeable to Steam [MMBtu/hr]

P_{NET} = Net electrical production [kW]

Fuel Chargeable to Steam (FCS) is the net heat used to generate steam divided by the efficiency of an equivalent boiler. Calculation of FCS is described in Equation 2.

Equation 2 *Calculation of Fuel Chargeable to Steam*

$$FCS = \frac{QHP + QLP - QFW}{e_{boiler}}$$

Where: FCS = Fuel Chargeable to Steam [MMBtu/hr]

QHP = Heat used to generate high pressure steam [MMBtu/hr]

QLP = Heat used to generate low pressure steam [MMBtu/hr]

QFW = Heat used to heat the feed water [MMBtu/hr]

e_{boiler} = Efficiency of an equivalent boiler [0.84]

Equation 3 *Calculation of Heat Consumption for Steam and Feed water*

$$Q_i = \Delta h_i * m_i$$

Where: Q_i = Heat used for steam or water stream, *i* [MMBtu/hr]

Δh_i = Change in enthalpy, *i* [MMBtu/lb]

m_i = Mass flow of stream *i*

C. Steam Boilers (EPNs: BO1, BO2, and BO3) Work Practice Standards, Operational Requirements, and Monitoring:

1. Fuel Specifications: Permittee shall limit fuel for boilers to pipeline quality natural gas or a maximum of 90/10 ratio of pipeline natural gas blended with fuel gas based on an annual average.
2. Each boiler is limited to a maximum heat input of 550 MMBtu/hr based on the higher heating value of the natural gas.
3. Permittee shall limit the total fuel heat input for the combined three (3) boilers to 10,769,647 MMBtu in any 12-month period.
4. Except during Phase 1 and Phase 2 of construction, when all four turbines are operational, the maximum combined hourly heat input to all three new boilers shall not exceed 825 MMBtu/hr.
5. When three turbines are operational (any single turbine is not operating) the maximum combined hourly heat input to all three new boilers shall not exceed 1,650 MMBtu/hr.

6. Except during Phase 1 and Phase 2 of construction, the combined annual heat input to all three new boilers and all four new turbines (excludes heat input to duct burners) shall not exceed 40,437,912 MMBtu/year.
7. Permittee shall install, operate, and maintain according to good engineering practices, an air preheater, and a condensate return system for each of boilers (BO1, BO2, and BO3).
8. Each startup for each boiler is defined as the period that begins when the data acquisition and handling system (DAHS) measures fuel flow to the boiler and ends when the boiler reaches hot standby mode or the fuel flow at which the boiler will operate. Each startup is limited to 240 minutes per event.
9. Each shutdown for each boiler is defined as the period that begins when the boiler drops below the hot standby fuel flow level and ends when no fuel flow is detected. Each shutdown is limited to 60 minutes per event.
10. Permittee shall monitor fuel gas flow continuously; determine fuel higher heating value whenever there is a fuel change or monthly, whichever is less; and calculate the total daily heat input per boiler.
11. Natural gas/fuel gas flow meter shall be calibrated in accordance with 40 CFR §98.34(b)(1).
12. Flow meters shall meet the specification in 40 CFR 60 Appendix B Spec 6.
13. All continuous emission monitors and flow meters shall meet the Quality Assurance Specifications in 40 CFR 60 Appendix F.
14. A data acquisition and handling system (DAHS) shall be used to measure and record the CO₂ emissions and demonstrate compliance with the annual emission rates and BACT limits.
15. Permittee shall maintain the following boiler work practice standards:
 - a. Maintain the Oxygen analyzers and calibration to ensure boiler efficiencies per the manufacturers recommendations. Oxygen analyzers shall be maintained and calibrated using 40 CFR 60 Appendix A-2, Method 3A.
 - b. Perform regular scheduled maintenance on the air preheater to maintain optimum heat transfer per the manufacturer's recommendations.
16. Perform scheduled maintenance and tune-ups of the boiler burners and equipment to include burner tips and heat convection sections to reduce fouling of the heat transfer surfaces and to maximize boiler efficiency.
17. Compliance with the Annual Emission Limit in Table 1 shall be demonstrated on a 12-month total, rolling monthly, calculated in accordance with equation C-5 found in 40 CFR §98.33(a)(3)(iii).
18. The emission limits established in Table 1 for the boilers includes emissions from MSS activities.

D. Steam Boilers (EPNs: BO1, BO2, and BO3) BACT Limit:

Permittee shall meet a BACT limit of 117 lb CO₂/MMBtu heat input when burning natural gas and/or fuel gas based on a 12-month rolling average for each boiler, including emissions from maintenance, startup and shutdown activities and shall be obtained by using daily CO₂ value from the continuous CO₂ stack gas analyzer, daily fuel flow and current fuel use higher heating value. The equation for calculating the BACT limit is as follows:

$$BACT\ Limit = \frac{\sum(monthly\ CO_2\ lbs\ from\ each\ new\ Rentech\ boiler\ duct/stack)}{\sum(monthly\ MM\ Btus\ heat\ input\ to\ each\ new\ Rentech\ steam\ boiler)}$$

E. Requirements for Steam Boilers to be Decommissioned (EPNs: ST-5, ST-6, and ST-7):

Permittee shall disable and retire existing steam boilers ST-5, ST-6 and ST-7 concurrent with the startup of the fourth combustion turbine.

F. Requirements for Combustion Turbines to be Decommissioned:

Permittee shall decommission, remove, and replace each of the four existing combustion turbines.

G. Continuous Emissions Monitoring Systems (CEMS)

1. The Permittee shall ensure that all required CO₂ monitoring system/equipment are installed and all certification tests are completed on or before the earlier of 90 unit operating days or 180 calendar days after the date the unit commences operation.
2. Permittee shall ensure compliance with the specifications and test procedures for CO₂ emission monitoring system at stationary sources, 40 CFR Part 75, or 40 CFR Part 60, Appendix B, Performance Specification numbers 1 through 9, as applicable.
3. The Permittee shall meet the appropriate quality assurance requirements specified in 40 CFR Part 60, Appendix F for the CO₂ emission monitoring system.

IV. Excess Emission Reporting and Records:

1. Excess emissions are defined as any period in which the facility emissions exceed a maximum emission limit set forth in this permit. Excess emissions indicated by GHG emission source certification testing or compliance monitoring shall be considered violations of the applicable emission limit for the purpose of this permit.

2. Maintain records and submit a written report of all excess emissions to EPA semi-annually, except when more frequent reporting is specifically required by an applicable subpart; or the Administrator or authorized representative, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. The report is due on the 30th day following the end of each semi-annual period and shall include the following:
 - a) Time intervals, data and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;
 - b) Applicable time and date of each period during which the monitoring equipment was inoperative (monitoring down-time);
 - c) A statement in the report of a negative declaration; that is a statement when no excess emissions occurred or when the monitoring equipment has not been inoperative, repaired or adjusted; and
 - d) Any failure to conduct any required source testing, monitoring, or other compliance activities.
 - e) Any violation of limitations on operation, including but not limited to restrictions on hours of operation.

V. Performance Testing Requirements:

A. The Permittee shall perform stack sampling and other testing to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the stacks of the Boilers (BO1, BO2, and BO3), and Combustion Turbines (CG801, CG802, CG803, and CG804), and to determine the initial compliance with the CO₂ emission limits established in this permit. Sampling shall be conducted in accordance with 40 CFR § 60.8 and EPA Method 3a or 3b (40 CFR App. A-2) for the concentration of CO₂.

1. For the Boilers (BO1, BO2, and BO3) calculate the CO₂ hourly average emission rate determined under maximum operating test conditions, convert to lbs of CO₂/MMBtu. Use the following equation to calculate the annual emissions for each boiler.

$$CO_2 \text{ TPY} = 410 \frac{\text{MMBtu}}{\text{hr}} * 8,760 \frac{\text{hr}}{\text{year}} * \text{lb} \frac{CO_2}{\text{MMBtu}}$$

Where:

410 MMBtu/hr = is the design annual average furnace firing rate upon which the emissions in Table 1 were based on.

lb CO₂/MMBtu = calculated from V.A.1.

2. For the Combustion Turbines (CG801, CG802, CG803, and CG804) multiply the CO₂ hourly average emission rate determined under maximum operating conditions by 8,760 hours.
 3. If the above calculated CO₂ emission total exceeds the tons per year (TPY) specified in Table 1, the facility shall;
 - a. Document the exceedance in the test report; and
 - b. Explain within the report how the facility will assure compliance with the CO₂ emission limit listed in Table 1.
- B. The Permittee shall conduct an evaluation of the thermal efficiency of the Combustion Turbines (CG801, CG802, CG803, and CG804) to verify compliance with the BACT Limit specified in Condition III.D.1. when performing testing as stated in V.A.2. above. The results of the thermal efficiency shall be submitted to the EPA within 30 days of testing.
- C. Within 60 days after achieving the maximum production rate at which each boiler will operate, but not later than 180 days after initial startup of the individual boiler, performance tests must be conducted and a written report of the performance testing results furnished to the EPA. Additional sampling may be required by EPA.
- D. Permittee shall submit a performance test protocol to EPA no later than 30 days prior to the test to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol, and any changes required by EPA.
- E. Performance tests must be conducted under such conditions to ensure representative performance of the affected facility. The owner or operator must make available to the EPA such records as may be necessary to determine the conditions of the performance tests.
- F. The owner or operator must provide the EPA at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the EPA the opportunity to have an observer present and/or to attend a pre-test meeting. If there is a delay in the original test date, the facility must provide at least 7 days prior notice of the rescheduled date of the performance test unless EPA approves an earlier rescheduled date.
- G. The owner or operator shall provide, or cause to be provided, performance testing facilities as follows:
1. Sampling ports adequate for test methods applicable to this facility,
 2. Safe sampling platform(s),
 3. Safe access to sampling platform(s), and
 4. Utilities for sampling and testing equipment.
- H. Unless otherwise specified, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For purposes of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply.

- I. The Permittee shall conduct its initial CO₂ CEMS relative accuracy test audit (RATA), in accordance with 40 CFR Part 60, Appendix F, Procedure 1, to evaluate compliance of each turbine with the emission standards on a continuous basis, within thirty (30) days of installation and startup of each turbine.
- J. Emissions testing, as outlined above, shall be performed every five years, plus or minus 6 months, of when the previous performance test was performed, or within 180 days after the issuance of a permit renewal, whichever comes later to verify continued performance at permitted emission limits.

VI. Recordkeeping and Reporting

1. In order to demonstrate compliance with the GHG emission limits in Sections II and III, the Permittee shall monitor the following parameters and summarize the data on a calendar month basis.
 - a. Operating hours for the each steam boiler (BO1, BO2, and BO3) and each combustion turbine (CG801, CG802, CG803, and CG804).
 - b. The daily fuel usage for each steam boiler (BO1, BO2, and BO3) and each combustion turbine (CG801, CG802, CG803, and CG804) using continuous fuel flow monitors of natural gas and/or off-gas.
 - c. Monthly fuel sampling for natural gas and when switch is made to a natural gas/off-gas combination.
 - d. The daily steam production rate steam boiler (BO1, BO2, and BO3) and daily high pressure and low pressure steam produced by each combustion turbine (CG801, CG802, CG803, and CG804).
 - e. Average daily steam pressure and steam temperature produced by each combustion turbine, (CG801, CG802, CG803, and CG804).
 - f. Average daily enthalpy for the low and high pressure steam based on average conditions for each combustion turbine, (CG801, CG802, CG803, and CG804).
 - g. The daily heat input rate for each boiler (BO1, BO2, and BO3) and each turbine/duct burner combination (CG801, CG802, CG803, and CG804).
 - h. Daily CO₂e/MMBtu heat input for each boiler (BO1, BO2, and BO3) and daily CO₂e/MMBtu heat input for each combustion turbine/duct burner combination (CG801, CG802, CG803, and CG804).
 - i. Inspection of the air preheater performance for the boilers and turbines and fuel preheater performance for the turbines.
2. Maintain a file of all records, data, measurements, reports, and documents related to the operation of the facilities authorized by this permit, including, but not limited to, the following: all records or reports pertaining to the maintenance performed on any system or device that is a part of a facility authorized by this permit; all records relating to performance

tests and monitoring of combustion equipment; and all other information required by this permit recorded in a permanent form suitable for inspection.

3. Maintain records of startup, shutdown, or malfunction, initial startup period for the emission units, performance testing, calibrations, checks, duration of any periods during which a monitoring device is inoperative, and corresponding emission measurement
4. Maintain records of all GHG emission units and CO₂ and O₂ emission certification tests, monitoring and compliance information required by this permit.
5. All records required by this PSD Permit shall be retained for not less than 5 years following the date of such measurements, maintenance, and reporting.

VII. Agency Notifications

Permittee shall submit GHG permit applications, permit amendments, and other applicable permit information to:

Multimedia Planning and Permitting Division
EPA Region 6
1445 Ross Avenue (6 PD-R)
Dallas, TX 75202
Email: Group R6AirPermits@EPA.gov

Permittee shall submit a copy of all performance tests, analyzers quality assurance tests, compliance and enforcement correspondence as required by this Approval to Construct to:

Compliance Assurance and Enforcement Division
EPA Region 6
1445 Ross Avenue (6EN)
Dallas, TX 75202