

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Flint Hills Resources Houston Chemical LLC

AUTHORIZING THE OPERATION OF
Flint Hills Resources Houston Chemical
Industrial Organic Chemicals

LOCATED AT
Harris County, Texas
Latitude 29° 42' 22" Longitude 95° 15' 0"
Regulated Entity Number: RN102576063

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: 01251 Issuance Date: August 6, 2013

For the Commission

Table of Contents

Section	Page
General Terms and Conditions	1
Special Terms and Conditions	1
Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting.....	1
Additional Monitoring Requirements	11
New Source Review Authorization Requirements.....	11
Compliance Requirements	12
Risk Management Plan	14
Protection of Stratospheric Ozone	14
Permit Location.....	14
Permit Shield (30 TAC § 122.148)	14
Attachments.....	16
Applicable Requirements Summary.....	17
Additional Monitoring Requirements	95
Permit Shield	99
New Source Review Authorization References	107
Appendix A	112
Acronym List	113
Appendix B	114

General Terms and Conditions

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

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

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

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

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

Special Terms and Conditions:

Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:
 - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
 - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.
 - C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

- D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
- E. Emission units subject to 40 CFR Part 63, Subpart H and ZZZZ as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.130 and 113.1090 which incorporates 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
- I. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 6 (Highly Reactive Volatile Organic Compound Emissions Cap and Trade Program) requirements:
- (i) Title 30 TAC § 101.393 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.394 (relating to Allocation of Allowances)
 - (iii) Title 30 TAC § 101.396 (relating to Allowance Deductions)
 - (iv) Title 30 TAC § 101.399 (relating to Allowance Banking and Trading)
 - (v) Title 30 TAC § 101.400 (relating to Reporting)
 - (vi) The terms and conditions by which the emission limits are established to meet or exceed the cap 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 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) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.
 - (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be

considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

- B. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:
- (i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)
 - (ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)
 - (iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
 - (1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.
 - (2) Records of all observations shall be maintained.
 - (3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
 - (4) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A)
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

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

- (i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)
- (iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
 - (1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.
 - (2) Records of all observations shall be maintained.
 - (3) Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each

source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- D. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
- E. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- F. Permit holders for sites that have materials handling, construction, roads, streets, alleys, and parking lots shall comply with the following requirements:
 - (i) Title 30 TAC § 111.143 (relating to Materials Handling)
 - (ii) Title 30 TAC § 111.145 (relating to Construction and Demolition)
 - (iii) Title 30 TAC § 111.147 (relating to Roads, Streets, and Alleys)

- (iv) Title 30 TAC § 111.149 (relating to Parking Lots)
 - (v) Title 30 TAC § 111.205 (relating to Exception for Fire Training)
4. For storage vessels maintaining working pressure as specified in 30 TAC Chapter 115, Subchapter B, Division 1: Storage of Volatile Organic Compounds, the permit holder shall comply with the requirements of 30 TAC § 115.112(e)(1).
 5. The permit holder shall comply with the following requirements of 30 TAC Chapter 115, Subchapter F, Division 3, Degassing of Storage Tanks, Transport Vessels and Marine Vessels:
 - A. For degassing of stationary VOC storage tanks, the permit holder shall comply with the following requirements:
 - (i) Title 30 TAC § 115.541(a) - (c) (relating to Emission Specifications)
 - (ii) Title 30 TAC § 115.541(f) (relating to Emission Specifications), for floating roof storage tanks
 - (iii) Title 30 TAC § 115.542(a) and (a)(1), (a)(2), (a)(3) or (a)(4) (relating to Control Requirements). Where the requirements of 30 TAC Chapter 115, Subchapter F contain multiple compliance options, the permit holder shall keep records of when each compliance option was used.
 - (iv) Title 30 TAC § 115.542(b) - (d), (relating to Control Requirements)
 - (v) Title 30 TAC § 115.543 (relating to Alternate Control Requirements)
 - (vi) Title 30 TAC § 115.544(a)(1) and (a)(2) (relating to Inspection, Monitoring, and Testing Requirements), for inspections
 - (vii) Title 30 TAC § 115.544(b) (relating to Inspection, Monitoring, and Testing Requirements), for monitoring
 - (viii) Title 30 TAC § 115.544(b)(1) and (b)(2) (relating to Inspection, Monitoring, and Testing Requirements), for monitoring of control devices
 - (ix) Title 30 TAC § 115.544(b)(2)(A) - (J) (relating to Inspection, Monitoring, and Testing Requirements), for monitoring (as appropriate to the control device)
 - (x) Title 30 TAC § 115.544(b)(3), (b)(4) and (b)(6) (relating to Inspection, Monitoring, and Testing Requirements), for VOC concentration or lower explosive limit threshold monitoring
 - (xi) Title 30 TAC § 115.544(c), and (c)(1) - (c)(3) (relating to Inspection, Monitoring, and Testing Requirements), for testing of control devices used to comply with 30 TAC § 115.542(a)(1)
 - (xii) Title 30 TAC § 115.545(1) - (7), (9) - (11) and (13) (relating to Approved Test Methods)

- (xiii) Title 30 TAC § 115.546(a), (a)(1) and (a)(3) (relating to Recordkeeping and Notification Requirements), for recordkeeping
- (xiv) Title 30 TAC § 115.546(a)(2) and (a)(2)(A) - (J) (relating to Recordkeeping and Notification Requirements), for recordkeeping (as appropriate to the control device)
- (xv) Title 30 TAC § 115.546(a)(4) (relating to Recordkeeping and Notification Requirements), for recordkeeping of testing of control devices used to comply with 30 TAC § 115.542(a)(1)
- (xvi) Title 30 TAC § 115.546(b) (relating to Recordkeeping and Notification Requirements), for notification
- (xvii) Title 30 TAC § 115.547(4) (relating to Exemptions)

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 following requirements for units subject to any subpart of 40 CFR Part 61, unless otherwise stated in the applicable subpart:

- A. Title 40 CFR § 61.05 (relating to Prohibited Activities)
- B. Title 40 CFR § 61.07 (relating to Application for Approval of Construction or Modification)
- C. Title 40 CFR § 61.09 (relating to Notification of Start-up)
- D. Title 40 CFR § 61.10 (relating to Source Reporting and Request Waiver)
- E. Title 40 CFR § 61.12 (relating to Compliance with Standards and Maintenance Requirements)
- F. Title 40 CFR § 61.13 (relating to Emissions Tests and Waiver of Emission Tests)

- G. Title 40 CFR § 61.14 (relating to Monitoring Requirements)
 - H. Title 40 CFR § 61.15 (relating to Modification)
 - I. Title 40 CFR § 61.19 (relating to Circumvention)
8. For facilities where total annual benzene quantity from waste is less than 1 megagram per year and subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(5)(i) - (ii), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions), for calculation procedures
 - B. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)
 - C. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)
 - D. Title 40 CFR § 61.357(a), and (b) (relating to Reporting Requirements)
9. 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

10. 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

11. 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
- 12. 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.
- 13. 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, safety data sheets (SDS), 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. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

- 14. 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.
- 15. 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)
 - 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.
- 16. 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
17. 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

18. 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.

Risk Management Plan

19. 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.

Protection of Stratospheric Ozone

20. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone.
 - A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.
 - B. The permit holder shall comply with 40 CFR Part 82, Subpart H related to Halon Emissions Reduction requirements as specified in 40 CFR § 82.250 - § 82.270 and the applicable Part 82 Appendices.

Permit Location

21. 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)

22. 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.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Applicable Requirements Summary

Unit Summary 18

Applicable Requirements Summary 29

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
1-103B	Process Heaters/Furnaces	N/A	R7310-01	30 TAC Chapter 117, Subchapter B	No changing attributes.
1-104BD	Boilers/Steam Generators/Steam Generating Units	N/A	R7310-03	30 TAC Chapter 117, Subchapter B	Fuel Type #2 = Gaseous fuel other than natural gas landfill gas or renewable non-fossil fuel gases.
1-104BD	Boilers/Steam Generators/Steam Generating Units	N/A	R7310-03NG	30 TAC Chapter 117, Subchapter B	No changing attributes.
1-104BD	Boilers/Steam Generators/Steam Generating Units	N/A	60Db-1	40 CFR Part 60, Subpart Db	No changing attributes.
1-104BD	Boilers/Steam Generators/Steam Generating Units	N/A	60Db-2	40 CFR Part 60, Subpart Db	No changing attributes.
1-104BD	Boilers/Steam Generators/Steam Generating Units	N/A	60Db-3	40 CFR Part 60, Subpart Db	No changing attributes.
1-105A	Flares	N/A	R1111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.
1-105A	Flares	N/A	R5720-06	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
1-105A	Flares	N/A	60A-01	40 CFR Part 60, Subpart A	Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec), Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
1-105A	Flares	N/A	60A-02	40 CFR Part 60, Subpart A	Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec), Heating Value of Gas = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm)
4000-B	Emission Points/Stationary Vents/Process Vents	N/A	R1111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.
4000-B	Process Heaters/Furnaces	N/A	R7310-02	30 TAC Chapter 117, Subchapter B	No changing attributes.
4001-B	Stationary Turbines	N/A	R7310-04	30 TAC Chapter 117, Subchapter B	No changing attributes.
4002-B	Stationary Turbines	N/A	R7310-04	30 TAC Chapter 117, Subchapter B	No changing attributes.
4026-U	Emission Points/Stationary Vents/Process Vents	N/A	R1111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.
4030-EJ	Emission Points/Stationary Vents/Process Vents	N/A	R5720-04	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
4030-EJ	Emission Points/Stationary Vents/Process Vents	N/A	R5121-05	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
4030-EJ	Reactor	N/A	60RRR-02	40 CFR Part 60, Subpart RRR	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
501-D	Reactor	N/A	60RRR-000011	40 CFR Part 60, Subpart RRR	No changing attributes.
CTOWER	Industrial Process Cooling Towers	N/A	R5760-01	30 TAC Chapter 115, HRVOC Cooling Towers	<p>Jacketed Reactor = The cooling tower heat exchange system is not in dedicated service to a jacketed reactor., Cool Twr Ht Ex Exemptions = The cooling tower heat exchange system does not qualify for an exemption., Alternative Monitoring = Complying with the specified monitoring in 30 TAC § 115.764., Modified Monitoring = not using minor modifications to the monitoring and testing methods in 30 TAC § 115.764., Design Capacity = Design capacity to circulate 8000 gpm or greater., Finite Volume System = The cooling tower heat exchange system is complying with the requirements in § 115.764(a)., Flow Monitoring/Testing Method = Choosing to use the maximum potential flow rate based on the manufacturer's pump performance data in accordance with §115.764(e)(1)., Total Strippable VOC = The cooling tower heat exchange system is complying with the requirements of § 115.764(a)., On-Line Monitor</p>

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					= A continuous on-line monitor capable of providing total HRVOC and speciated HRVOCs in ppbw is being used.
CTOWER	Industrial Process Cooling Towers	N/A	R5760-02	30 TAC Chapter 115, HRVOC Cooling Towers	Cool Twr Ht Ex Exemptions = The cooling tower heat exchange system in which each individual heat exchanger with greater than 100 ppmw HRVOCs is operated with the minimum pressure on the cooling water side at least 5 psig greater than the maximum pressure on the process side.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
CTOWER	Industrial Process Cooling Towers	N/A	R5760-03	30 TAC Chapter 115, HRVOC Cooling Towers	<p>Jacketed Reactor = The cooling tower heat exchange system is not in dedicated service to a jacketed reactor., Cool Twr Ht Ex Exemptions = The cooling tower heat exchange system does not qualify for an exemption., Alternative Monitoring = Complying with the specified monitoring in 30 TAC § 115.764., Modified Monitoring = not using minor modifications to the monitoring and testing methods in 30 TAC § 115.764., Design Capacity = Design capacity to circulate less than 8000 gpm., Flow Monitoring/Testing Method = Choosing to use a continuous flow monitor on each inlet of each cooling tower in accordance with § 115.764(a)(1), (b)(1), or (h)(1)., Total Strippable VOC = The cooling tower heat exchange system is complying with the requirements of § 115.764(a)., On-Line Monitor = Speciated strippable HRVOC concentration is being determined by sampling.</p>
DISTILLATION	Distillation Operations	N/A	60NNN-01	40 CFR Part 60, Subpart NNN	No changing attributes.
ENGINES	SRIC Engines	N/A	R7300-01	30 TAC Chapter 117, Subchapter B	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
ENGINES	SRIC Engines	N/A	63ZZZZ-01	40 CFR Part 63, Subpart ZZZZ	Brake HP = Stationary RICE with a brake HP greater than or equal to 100 HP and less than 250 HP, Service Type = Normal use.
ENGINES	SRIC Engines	N/A	63ZZZZ-02	40 CFR Part 63, Subpart ZZZZ	Brake HP = Stationary RICE with a brake HP greater than or equal to 250 HP and less than 300 HP., Service Type = Emergency use where the RICE does not operate or is not contractually obligated to be available for more than 15 hours per calendar year as specified in 40 CFR §63.6640(f)(2)(ii)-(iii) or does not operate as specified in 40 CFR §63.6640(f)(4)(ii).
ENGINES	SRIC Engines	N/A	63ZZZZ-03	40 CFR Part 63, Subpart ZZZZ	Brake HP = Stationary RICE with a brake HP greater than or equal to 300 HP and less than or equal to 500 HP., Service Type = Emergency use where the RICE does not operate or is not contractually obligated to be available for more than 15 hours per calendar year as specified in 40 CFR §63.6640(f)(2)(ii)-(iii) or does not operate as specified in 40 CFR §63.6640(f)(4)(ii).
EXHAUSTVT	Emission Points/Stationary Vents/Process Vents	N/A	R5720-04	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
F-1-L4	Loading/Unloading Operations	N/A	R5211-01	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
FLAREVT	Emission Points/Stationary Vents/Process Vents	N/A	R5270-01	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
FLAREVT	Emission Points/Stationary Vents/Process Vents	N/A	R5121-01	30 TAC Chapter 115, Vent Gas Controls	Vent Type = Vent gas stream originates from a synthetic organic chemical manufacturing industry reactor process or distillation operation, as defined in 30 TAC § 115.10.
FLAREVT	Emission Points/Stationary Vents/Process Vents	N/A	R5121-02	30 TAC Chapter 115, Vent Gas Controls	Vent Type = Title 30 TAC Chapter 115, Subchapter B, Vent Gas Control rules are applicable and the vent is not specifically classified under the rule.
LD-SLUDGE	Loading/Unloading Operations	N/A	R5211-01	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
LD-TAR	Loading/Unloading Operations	N/A	R5211-01	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
M-1002	Storage Tanks/Vessels	N/A	R5112-01	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
M-1002	Storage Tanks/Vessels	N/A	60Kb-01	40 CFR Part 60, Subpart Kb	No changing attributes.
M-1002	Storage Tanks/Vessels	N/A	63VVVVVV-01	40 CFR Part 63, Subpart VVVVVV	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
M-222	Storage Tanks/Vessels	N/A	R5112-02	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
M-222	Storage Tanks/Vessels	N/A	60Kb-02	40 CFR Part 60, Subpart Kb	No changing attributes.
M-223	Storage Tanks/Vessels	N/A	R5112-02	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
M-223	Storage Tanks/Vessels	N/A	60Kb-02	40 CFR Part 60, Subpart Kb	No changing attributes.
PLANT	Fugitive Emission Units	N/A	R5780-ALL	30 TAC Chapter 115, HRVOC Fugitive Emissions	No changing attributes.
PLANT	Fugitive Emission Units	N/A	R5352-ALL	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	No changing attributes.
PLANT	Fugitive Emission Units	N/A	60Vva-01	40 CFR Part 60, Subpart Vva	No changing attributes.
PLANT	Fugitive Emission Units	N/A	61J-01	40 CFR Part 61, Subpart J	No changing attributes.
PLANT	Fugitive Emission Units	N/A	61V-01	40 CFR Part 61, Subpart V	No changing attributes.
PLANT	Fugitive Emission Units	N/A	63H-ALL	40 CFR Part 63, Subpart H	No changing attributes.
PRO-PROPYLENE	Process	N/A	63VVVVVV-01	40 CFR Part 63, Subpart VVVVVV	No changing attributes.
REACTORS	Emission Points/Stationary Vents/Process Vents	N/A	R5270-02	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
REACTORS	Emission Points/Stationary Vents/Process Vents	N/A	R5121-03	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
REACTORS	Reactor	N/A	60RRR-01	40 CFR Part 60, Subpart RRR	No changing attributes.
SLOPLDRK	Loading/Unloading Operations	N/A	R5211-01	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
SMALLTK2	Storage Tanks/Vessels	N/A	R5112-04	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
T-136A	Storage Tanks/Vessels	N/A	R5112-03	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
T-136B	Storage Tanks/Vessels	N/A	R5112-03	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
TURBINES	Stationary Turbines	N/A	NSPSKKKK-03GS	40 CFR Part 60, Subpart KKKK	No changing attributes.
TURBINES	Stationary Turbines	N/A	NSPSKKKK- 03GS1	40 CFR Part 60, Subpart KKKK	Fuel Type = Only gaseous fuel, < 50% natural gas., NO _x Control = NO _x emissions are not being controlled by steam or water injection.
TURBINES	Stationary Turbines	N/A	NSPSKKKK- 03NGG	40 CFR Part 60, Subpart KKKK	No changing attributes.
TURBINES	Stationary Turbines	N/A	NSPSKKKK- 03NGG1	40 CFR Part 60, Subpart KKKK	Fuel Type = Only gaseous fuel, > 50% natural gas., NO _x Control = NO _x emissions are not being controlled by steam or water injection.
TURBINES	Stationary Turbines	N/A	NSPSKKKK- 03NGO	40 CFR Part 60, Subpart KKKK	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
TURBINES	Stationary Turbines	N/A	NSPSKKKK-03NGO1	40 CFR Part 60, Subpart KKKK	Fuel Type = 100% natural gas., NO _x Control = NO _x emissions are not being controlled by steam or water injection.
UNLOAD	Loading/Unloading Operations	N/A	R5211-HIVP	30 TAC Chapter 115, Loading and Unloading of VOC	True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia., Daily Throughput = Daily throughput not determined since 30 TAC § 115.217(a)(2)(A) or 30 TAC § 115.217(b)(3)(A) exemption is not utilized., Chptr 115 Cntrl Dev Type = No control device., Transfer Type = Only unloading., Control Options = Vapor balance system., Vapor Tight = All liquid and vapor lines are equipped with fittings which make vapor-tight connections that close automatically when disconnected.
UNLOAD	Loading/Unloading Operations	N/A	R5211-LOWVP	30 TAC Chapter 115, Loading and Unloading of VOC	True Vapor Pressure = True vapor pressure less than 0.5 psia., Transfer Type = Loading and unloading.
V-1-L4	Loading/Unloading Operations	N/A	R5211-02	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
V-2-L4	Loading/Unloading Operations	N/A	R5211-02	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
WWU	Process	N/A	63VVVVVV-01	40 CFR Part 63, Subpart VVVVVV	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)
1-103B	EU	R7310-01	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)
1-103B	EU	R7310-01	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) § 117.340(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)

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)
1-104BD	EU	R7310-03	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(1)(A) § 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) § 117.340(b)(1) § 117.340(b)(3) § 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) [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)(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)
1-104BD	EU	R7310-03	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(1) § 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)

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)
1-104BD	EU	R7310-03NG	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(1)(A) § 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) § 117.340(b)(1) § 117.340(b)(3) § 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) [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)(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)
1-104BD	EU	R7310-03NG	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(1) § 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)

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)
1-104BD	EU	60Db-1	SO ₂	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)
1-104BD	EU	60Db-1	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).	§ 60.46b(a)	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
1-104BD	EU	60Db-1	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).	§ 60.46b(a)	[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)
1-104BD	EU	60Db-1	NO _x	40 CFR Part 60, Subpart Db	§ 60.44b(a)(1)(i) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Except as in §60.44b(k), (l), on/after §60.8 test, no facility combusting natural gas and distillate oil (low heat release rate) shall discharge gases containing NOx in excess of 43 ng/J heat input.	§ 60.46b(a) § 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)
1-104BD	EU	60Db-2	SO ₂	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)
1-104BD	EU	60Db-2	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)

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)
1-104BD	EU	60Db-2	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)
1-104BD	EU	60Db-2	NO _x	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)
1-104BD	EU	60Db-3	SO ₂	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)
1-104BD	EU	60Db-3	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)
1-104BD	EU	60Db-3	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)
1-104BD	EU	60Db-3	NO _x	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)
1-105A	EU	R1111-01	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

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)
1-105A	EP	R5720-06	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(d) § 115.722(d)(1) § 115.722(d)(2) [G]§ 115.725(d)(1) § 115.725(d)(2) § 115.725(d)(2)(A)(i) [G]§ 115.725(d)(2)(A)(ii) § 115.725(d)(2)(A)(iii) § 115.725(d)(2)(A)(iv) § 115.725(d)(2)(B) § 115.725(d)(2)(B)(i) § 115.725(d)(2)(B)(ii) § 115.725(d)(2)(B)(iii) § 115.725(d)(2)(B)(iv) [G]§ 115.725(l) § 115.725(m)(2)(A) § 115.725(m)(2)(B) [G]§ 115.726(a)(2)	All flares must continuously meet the requirements of 40 CFR § 60.18(c)(2)-(6) and (d) as amended through October 17, 2000 (65 FR 61744) when vent gas containing HRVOC is being routed to the flare.	[G]§ 115.725(d)(1) § 115.725(d)(2) § 115.725(d)(2)(A)(i) [G]§ 115.725(d)(2)(A)(ii) § 115.725(d)(2)(A)(iii) § 115.725(d)(2)(A)(iv) § 115.725(d)(2)(B) § 115.725(d)(2)(B)(i) § 115.725(d)(2)(B)(ii) § 115.725(d)(2)(B)(iii) § 115.725(d)(2)(B)(iv) § 115.725(d)(3) § 115.725(d)(4) § 115.725(d)(5) § 115.725(d)(6) § 115.725(d)(7) § 115.725(k)(1) [G]§ 115.725(l) § 115.725(m)(1) § 115.725(m)(2)(A) § 115.725(m)(2)(B) § 115.725(m)	§ 115.726(a)(1) § 115.726(a)(1)(A) § 115.726(d)(1) § 115.726(d)(10) § 115.726(d)(2) § 115.726(d)(3) § 115.726(d)(4) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	§ 115.725(n) § 115.726(a)(1)(B) [G]§ 115.726(a)(2)
1-105A	CD	60A-01	Opacity	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(i) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4)	None	None
1-105A	CD	60A-02	Opacity	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(ii) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4)	None	None

Applicable Requirements Summary

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4000-B	EP	R1111-01	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)	None	None

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4000-B	EU	R7310-02	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) § 117.340(b)(1) § 117.340(b)(3) § 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) [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)(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)

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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)
4000-B	EU	R7310-02	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) § 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 § 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)(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)
4000-B	EU	R7310-02	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)

Applicable Requirements Summary

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4001-B	EU	R7310-04	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(10)(A) § 117.310(a)(11) § 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) § 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) [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)(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

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4001-B	EU	R7310-04	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) § 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) § 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)

Applicable Requirements Summary

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4001-B	EU	R7310-04	NH ₃	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(B) § 117.340(f)(1)	For duct burners that inject urea or ammonia into the exhaust stream for NO _x control, ammonia emissions must not exceed 10 ppmv at 15% 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) § 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)

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)
4002-B	EU	R7310-04	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(10)(A) § 117.310(a)(11) § 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) § 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) [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)(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

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4002-B	EU	R7310-04	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) § 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) § 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)

Applicable Requirements Summary

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4002-B	EU	R7310-04	NH ₃	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(B) § 117.340(f)(1)	For duct burners that inject urea or ammonia into the exhaust stream for NO _x control, ammonia emissions must not exceed 10 ppmv at 15% 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) § 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)
4026-U	EP	R1111-01	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)	None	None

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4030-EJ	EP	R5720-04	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(c)(2)	A vent gas stream that has the potential to emit HRVOCs, but has a concentration less than 100 ppmv at all times or has a maximum potential flow rate equal to or less than 100 dry standard cubic feet per hour is exempt from this division with the exception of § 115.726(e)(3)(A) of this title. The maximum potential HRVOC emissions for the sum of all vent gas streams claimed under this exemption, must be less for the account specified in § 115.722(a) or (b) of this title than 0.5 tpy.	None	§ 115.726(e)(3)(A) § 115.726(j)(2)	None
4030-EJ	EP	R5121-05	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(4)(C) [G]§ 115.122(a)(4) § 115.127(a)(4)	Any SO2MI reactor process or distillation operation vent gas stream with a flow rate < 0.011 scm/min (0.388 scf/min) or a VOC concentration < 500 ppmv is exempt from §115.121(a)(2)(A).	[G]§ 115.125 § 115.126(2) § 115.126(3)(D)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(D)	None
4030-EJ	EP	60RRR-02	VOC/TOC	40 CFR Part 60, Subpart RRR	§ 60.700(c)(8)	Each facility operated with a TOC concentration in the vent stream < 300 ppmv (Method 18) or < 150 ppmv (Method 25A) is exempt, except for §60.704(h) and §60.705(j), (l)(8), and (p).	[G]§ 60.704(h) § 60.705(l)(8)	§ 60.705(j)	§ 60.705(l)(8) § 60.705(p)

Applicable Requirements Summary

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501-D	EP	60RRR-000011	VOC/TOC	40 CFR Part 60, Subpart RRR	§ 60.702(b) § 60.18	For each vent stream, combust the emissions in a flare that meets the requirements of §60.18.	§ 60.703(b) § 60.703(b)(1) § 60.704(a) § 60.704(c) [G]§ 60.704(d)	§ 60.705(b) § 60.705(b)(3) § 60.705(e) § 60.705(s)	§ 60.705(a) § 60.705(b) § 60.705(b)(3) § 60.705(k) § 60.705(l) § 60.705(l)(3) § 60.705(s)
CTOWER	EU	R5760-01	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Cooling Towers	§ 115.761(c)(1) § 115.761(c)(3) § 115.766(i)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 1 of this subchapter must not exceed 1,200 pounds of HRVOCs per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.764(a)(3) [G]§ 115.764(a)(6) § 115.764(c)	§ 115.766(a)(1) § 115.766(a)(2) § 115.766(a)(3) § 115.766(a)(5) § 115.766(a)(6) § 115.766(c) [G]§ 115.766(e) [G]§ 115.766(g) [G]§ 115.766(h) § 115.766(i)(1)	§ 115.766(i)(2)

Applicable Requirements Summary

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CTOWER	EU	R5760-02	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Cooling Towers	§ 115.767(1)	Cooling tower heat exchange systems in which each individual heat exchanger with > 100 ppmw HRVOC in the process side fluid is operated with the minimum pressure on the cooling water side at least five psig greater than the maximum pressure on the process side, as demonstrated by continuous pressure monitoring and recording at all heat exchangers with > 100 ppmw HRVOC in the process side fluid, is exempt from the requirements of this division, with the exception of §115.766(b)-(c).	None	§ 115.766(b) § 115.766(b)(1) § 115.766(c)	None
CTOWER	EU	R5760-03	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Cooling Towers	§ 115.761(c)(1) § 115.761(c)(3) § 115.764(b)(1) § 115.766(i)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 1 of this subchapter must not exceed 1,200 pounds of HRVOCs per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.764(b)(1) § 115.764(b)(2) § 115.764(b)(3) § 115.764(b)(4) § 115.764(b)(5) § 115.764(c)	§ 115.766(a)(1) § 115.766(a)(2) § 115.766(a)(3) § 115.766(a)(4) § 115.766(a)(5) § 115.766(a)(6) § 115.766(c) [G]§ 115.766(g) [G]§ 115.766(h) § 115.766(i)(1)	§ 115.766(i)(2)

Applicable Requirements Summary

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DISTILLATION	EP	60NNN-01	VOC/TOC	40 CFR Part 60, Subpart NNN	§ 60.662(b) § 60.18	Each affected facility shall combust the emissions in a flare that meets the requirements of § 60.18.	§ 60.663(b) § 60.663(b)(1) § 60.663(b)(2) § 60.664(a) § 60.664(d) [G]§ 60.664(e)	§ 60.663(b)(2) § 60.665(b) § 60.665(b)(3) § 60.665(d) § 60.665(f)	§ 60.665(a) § 60.665(b) § 60.665(b)(3) § 60.665(k) § 60.665(l) § 60.665(l)(2) § 60.665(l)(4)
ENGINES	EU	R7300-01	EXEMPT	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(10) [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 any stationary diesel engine placed into service before October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average; and has not been modified, reconstructed, or relocated on or after October 1, 2001. §117.303(a)(10)(A)-(B)	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
ENGINES	EU	63ZZZZ-01	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6603(a)-Table2d.1 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(b)	For each existing non-emergency, non-black start CI stationary RICE with a site rating less than or equal to 300 HP, located at an area source, you must comply with the requirements as specified in Table 2d.1.a-c.	§ 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii § 63.6640(b)	§ 63.6625(i) § 63.6655(a) § 63.6655(a)(1) § 63.6655(d) § 63.6655(e) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(b) § 63.6640(e) § 63.6650(f)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
ENGINES	EU	63ZZZZ-02	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6603(a)-Table2d.4 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(b) § 63.6640(f)(1) [G]§ 63.6640(f)(2) [G]§ 63.6640(f)(4)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at an area source, you must comply with the requirements as specified in Table 2d.4.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii § 63.6640(b)	§ 63.6625(i) § 63.6655(a) § 63.6655(a)(1) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(b) § 63.6640(e) § 63.6650(f)
ENGINES	EU	63ZZZZ-03	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6603(a)-Table2d.4 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(b) § 63.6640(f)(1) [G]§ 63.6640(f)(2) [G]§ 63.6640(f)(4)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at an area source, you must comply with the requirements as specified in Table 2d.4.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii § 63.6640(b)	§ 63.6625(i) § 63.6655(a) § 63.6655(a)(1) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(b) § 63.6640(e) § 63.6650(f)
EXHAUSTVT	EP	R5720-04	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(c)(1) § 115.722(c)(3) § 115.725(a)(2)(A) § 115.725(a)(2)(B) § 115.725(a)(2)(C) § 115.725(a)(2)(D) § 115.725(a)(3) [G]§ 115.725(a)(4) [G]§ 115.725(l) [G]§ 115.726(a)(2)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 2 of this subchapter must not exceed 1,200 pounds of HRVOC per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.725(a) § 115.725(a)(2)(A) § 115.725(a)(2)(B) § 115.725(a)(2)(C) § 115.725(a)(2)(D) § 115.725(a)(3) § 115.725(a)(3)(B) [G]§ 115.725(a)(4) § 115.725(a)(5) [G]§ 115.725(l) § 115.725(n) ** See Periodic Monitoring Summary	§ 115.726(b)(1) § 115.726(b)(2) § 115.726(b)(3) [G]§ 115.726(g) [G]§ 115.726(h) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	[G]§ 115.725(a)(4) § 115.725(a)(5) § 115.725(n) [G]§ 115.726(a)(2)

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)
F-1-L4	EU	R5211-01	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.212(a)(1) § 115.212(a)(1)(A) § 115.212(a)(3)(A) § 115.212(a)(3)(A)(ii) § 115.212(a)(3)(B) [G]§ 115.212(a)(3)(C) § 115.212(a)(3)(E) § 115.214(a)(1)(B) § 115.214(a)(1)(C) § 60.18	At operations other than gasoline terminals, gasoline bulk plants, and marine terminals, vapors of VOC with a true vapor pressure of 0.5 psia or greater, must be controlled by one of the following methods.	§ 115.212(a)(3)(B) § 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.214(a)(1)(A)(ii) § 115.214(a)(1)(A)(iii) § 115.215 § 115.215(1) § 115.215(10) [G]§ 115.215(2) [G]§ 115.215(3) § 115.215(4) § 115.215(9) § 115.216(1) § 115.216(1)(B)	§ 115.216 § 115.216(1) § 115.216(1)(B) § 115.216(2) § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(ii) § 115.216(3)(A)(iii) § 115.216(3)(B)	None
FLAREVT	EP	R5270-01	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(c)(1) § 115.722(c)(3) § 115.722(d) § 115.722(d)(1) § 115.722(d)(2)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 2 of this subchapter must not exceed 1,200 pounds of HRVOC per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.725(n)	§ 115.726(d)(1) § 115.726(d)(2) § 115.726(d)(3) § 115.726(d)(4) [G]§ 115.726(g) [G]§ 115.726(h) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	§ 115.725(n)
FLAREVT	EP	R5121-01	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(a)(2) § 115.122(a)(2) § 115.122(a)(2)(A) § 60.18	No person may allow a vent gas stream to be emitted from the processes specified in §115.121(a)(2)(A)-(E), unless the vent gas stream is controlled properly in accordance with §115.122(a)(2).	[G]§ 115.125 § 115.126(1) § 115.126(1)(B) § 115.126(2) § 115.126(7)	§ 115.126 § 115.126(1) § 115.126(1)(B) § 115.126(2)	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)
FLAREVT	EP	R5121-02	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(a)(1) § 115.122(a)(1) § 115.122(a)(1)(B) § 60.18	No person may allow a vent gas stream containing VOC to be emitted from any process vent, unless the vent gas stream is burned properly in accordance with §115.122(a)(1) of this title.	[G]§ 115.125 § 115.126(1) § 115.126(1)(B) § 115.126(2)	§ 115.126 § 115.126(1) § 115.126(1)(B) § 115.126(2)	None
LD-SLUDGE	EU	R5211-01	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(3) [G]§ 115.212(a)(7) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Liquefied petroleum gas. All loading and unloading of liquefied petroleum gas is exempt from the requirements of this division, except for the specified requirements.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i)	§ 115.216 § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(ii) § 115.216(3)(A)(iii) § 115.216(3)(B)	None
LD-TAR	EU	R5211-01	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(1) [G]§ 115.212(a)(7) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of this division, except as specified.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
M-1002	EU	R5112-01	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(2) § 115.112(e)(2)(A) § 115.112(e)(2)(B) § 115.112(e)(2)(C) § 115.112(e)(2)(E) § 115.112(e)(2)(F) § 115.112(e)(2)(G) [G]§ 115.112(e)(2)(H) [G]§ 115.112(e)(2)(I) § 115.114(a)(2)(A) § 115.114(a)(4)(A)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	§ 115.114(a)(2) § 115.114(a)(3) § 115.114(a)(4) § 115.114(a)(4)(A) [G]§ 115.117	§ 115.118(a)(3) § 115.118(a)(5) § 115.118(a)(6)(C) § 115.118(a)(7)	§ 115.114(a)(2)(B) § 115.114(a)(4)(B) § 115.118(a)(3)
M-1002	EU	60Kb-01	VOC	40 CFR Part 60, Subpart Kb	[G]§ 60.112b(a)(2)	Storage vessels specified in §60.112b(a) and equipped with an external floating roof (pontoon or double-deck type) are to meet the specifications of §60.112b(a)(2)(i)-(iii).	[G]§ 60.113b(b)(1) [G]§ 60.113b(b)(2) § 60.113b(b)(3) § 60.113b(b)(4) § 60.113b(b)(4)(i) § 60.113b(b)(4)(i)(A) § 60.113b(b)(4)(i)(B) [G]§ 60.113b(b)(4)(ii) § 60.113b(b)(4)(iii) § 60.113b(b)(5) [G]§ 60.113b(b)(6) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.115b [G]§ 60.115b(b)(3) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(b)(4)(iii) § 60.113b(b)(5) § 60.113b(b)(6)(ii) § 60.115b § 60.115b(b)(1) [G]§ 60.115b(b)(2) § 60.115b(b)(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)
M-1002	EU	63VVVVV V-01	112 HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11497(a), Table 5 § 63.11497(b)	You must comply with the emission limits and other requirements in Table 5 to this subpart and in paragraph (b) of this section for organic HAP emissions from each of your storage tanks that meet the applicability criteria in Table 5 to this subpart.	[G]§ 63.11497(a)	§ 63.11501(c)(4) § 63.11501(c)(4)(i) § 63.11501(c)(4)(iii)	[G]§ 63.11501(d)
M-222	EU	R5112-02	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(2) § 115.112(e)(2)(A) § 115.112(e)(2)(B) § 115.112(e)(2)(C) § 115.112(e)(2)(D) § 115.112(e)(2)(F) [G]§ 115.112(e)(2)(I) § 115.114(a)(1)(A)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	§ 115.114(a)(1) § 115.114(a)(1)(A) [G]§ 115.117	§ 115.118(a)(3) § 115.118(a)(5) § 115.118(a)(6)(C) § 115.118(a)(7)	§ 115.114(a)(1)(B) § 115.118(a)(3)
M-222	EU	60Kb-02	VOC	40 CFR Part 60, Subpart Kb	§ 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(B) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii)	Storage vessels specified in §60.112b(a) and equipped with a fixed roof in combination with an internal floating roof shall meet the specifications listed in §60.112b(a)(1)(i)-(ix).	§ 60.113b(a)(1) [G]§ 60.113b(a)(3) § 60.113b(a)(4) § 60.113b(a)(5) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.115b § 60.115b(a)(2) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(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)
M-223	EU	R5112-02	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(2) § 115.112(e)(2)(A) § 115.112(e)(2)(B) § 115.112(e)(2)(C) § 115.112(e)(2)(D) § 115.112(e)(2)(F) [G]§ 115.112(e)(2)(I) § 115.114(a)(1)(A)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	§ 115.114(a)(1) § 115.114(a)(1)(A) [G]§ 115.117	§ 115.118(a)(3) § 115.118(a)(5) § 115.118(a)(6)(C) § 115.118(a)(7)	§ 115.114(a)(1)(B) § 115.118(a)(3)
M-223	EU	60Kb-02	VOC	40 CFR Part 60, Subpart Kb	§ 60.112b(a)(1) § 60.112b(a)(1)(i) § 60.112b(a)(1)(ii)(B) § 60.112b(a)(1)(iii) § 60.112b(a)(1)(iv) § 60.112b(a)(1)(ix) § 60.112b(a)(1)(v) § 60.112b(a)(1)(vi) § 60.112b(a)(1)(vii) § 60.112b(a)(1)(viii)	Storage vessels specified in §60.112b(a) and equipped with a fixed roof in combination with an internal floating roof shall meet the specifications listed in §60.112b(a)(1)(i)-(ix).	§ 60.113b(a)(1) [G]§ 60.113b(a)(3) § 60.113b(a)(4) § 60.113b(a)(5) § 60.116b(a) § 60.116b(b) § 60.116b(c) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3)	§ 60.115b § 60.115b(a)(2) § 60.116b(a) § 60.116b(b) § 60.116b(c)	§ 60.113b(a)(5) § 60.115b § 60.115b(a)(1) § 60.115b(a)(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)
PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(a)	Components that contact a process fluid containing less than 5.0% highly-reactive volatile organic compounds by weight on an annual average basis are exempt from the requirements of this division (relating to Fugitive Emissions), except for 115.786(e) and (f) of this title (relating to Record keeping Requirements).	None	§ 115.786(e) § 115.786(g)	None
PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.780(a) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) § 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) § 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.783(4)(A)(i) § 115.783(4)(A)(ii) § 115.783(4)(A)(ii)(I) § 115.783(4)(A)(ii)(II) § 115.783(4)(B) § 115.783(4)(B)(i) § 115.783(4)(B)(ii)	Process drains within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in the Houston/ Galveston/Brazoria area in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division.	§ 115.354(1) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(5) § 115.781(b)(6) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2)	§ 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	§ 115.782(c)(1)(B)(i) [G]§ 115.786(c)

Applicable Requirements Summary

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PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.780(a) [G]§ 115.725(c)(1) § 115.725(c)(2) [G]§ 115.725(c)(3) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) § 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) § 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.787(e) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	Pressure relief valves (in gaseous service) within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in the Houston/Galveston/Brazoria area in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division.	§ 115.354(1) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 [G]§ 115.725(c)(1) § 115.725(c)(2) [G]§ 115.725(c)(3) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(b)(8) § 115.781(e) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2)	§ 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	§ 115.725(c)(4) § 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(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)
PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.780(a) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(5) § 115.787(f) § 115.787(f)(2) § 115.787(f)(3) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	Open-ended valves or lines within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in the Houston/ Galveston/Brazoria area in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2) § 115.781(f)(3) § 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.789(1)(B)	§ 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(2) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g) § 115.789(1)(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)
PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.780(a) [G]§ 115.781(a) [G]§ 115.781(d) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(1) § 115.783(1)(A) § 115.783(1)(B) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	Bypass line valves within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in the Houston/ Galveston/Brazoria area in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division.	§ 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) [G]§ 115.781(d) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.786(a)(1)	§ 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.786(a)(1) § 115.786(a)(2) § 115.786(a)(2)(A) § 115.786(a)(2)(B) § 115.786(b)(1) § 115.786(b)(2) § 115.786(b)(2)(A) § 115.786(b)(2)(B) § 115.786(b)(2)(C) § 115.786(b)(3) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(2) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(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)
PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.780(a) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(5) § 115.787(f) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	Valves within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in the Houston/ Galveston/Brazoria area in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2)	§ 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(2) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(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)
PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.780(a) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) § 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) § 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv)	Flanges or other connectors within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in the Houston/Galveston/Brazoria area in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division.	§ 115.354(1) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2) § 115.781(f)(3) § 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.789(1)(B)	§ 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.789(1)(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)
PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.780(a) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) § 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) § 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(B) § 115.787(d)	Compressor seals within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in the Houston/ Galveston/Brazoria area in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(c)(1) § 115.781(c)(2) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2)	§ 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(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)
PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.780(a) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) § 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) § 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1) § 115.787(d)	Pump seals within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in the Houston/ Galveston/Brazoria area in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(c)(1) § 115.781(c)(2) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2)	§ 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(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)
PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.780(a) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) § 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) § 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(B) § 115.787(d)	Agitators within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in the Houston/ Galveston/Brazoria area in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division.	§ 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(c)(1) § 115.781(c)(2) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2)	§ 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(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)
PLANT	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.780(a) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) § 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) § 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv)	Heat exchanger heads, sight glasses, meters, gauges, sampling connections, bolted manways, hatches, sump covers, junction box vents, and covers and seals on VOC water separators within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a HRVOC is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division.	§ 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2) § 115.781(f)(3) § 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.789(1)(B)	§ 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.789(1)(B)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(7) § 115.357(1)	No process drains, contacting a process fluid with a TVP less than or equal to 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	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)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(7)	No process drains, contacting a process fluid with a TVP >0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	None
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(6) § 115.352(7) § 115.352(9) § 115.357(1) § 115.357(12)	No pressure relief valves (gaseous service), contacting a process fluid with a TVP less than or equal to 0.044 psia, shall be allowed to have a VOC leak, longer than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(6) § 115.352(7) § 115.352(9) § 115.357(12) § 115.357(8)	No pressure relief valves (gaseous service), contacting a process fluid with a TVP greater than 0.044 psia, shall be allowed to have a VOC leak, longer than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)

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)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(12)	No open-ended valves or lines, in an emergency shutdown system or containing materials that would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system, and contacting a process fluid with a TVP < 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8)	No open-ended valves or lines, in an emergency shutdown system or containing materials that would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system, and contacting a process fluid with a TVP greater than 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)

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)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(12)	No open-ended valves or lines, rated > 10,000 psig and contacting a process fluid with a TVP less than or equal to 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8)	No open-ended valves or lines, rated 10,000 psig or greater and contacting a process fluid with a TVP greater than 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(12)	No open-ended valves or lines, rated less than or equal to 10,000 psig and contacting a process fluid with a TVP less than or equal to 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)

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)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8)	No open-ended valves or lines, rated less than or equal to 10,000 psig and contacting a process fluid with a TVP greater than 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(12)	No valves, rated 10,000 psig or greater and contacting a process fluid with a TVP less than or equal to 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8)	No valves, rated 10,000 psig or greater and contacting a process fluid with a TVP greater than 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)

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)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(12)	No valves, rated less than or equal to 10,000 psig and contacting a process fluid with a TVP less than or equal to 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8)	No valves, rated less than or equal to 10,000 psig and contacting a process fluid with a TVP greater than 0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(8) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	[G]§ 115.354(7)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1) § 115.357(12)	No flanges, contacting a process fluid with a TVP of 0.044 psia or less, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	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)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	No flanges, contacting a process fluid with a TVP >0.044 psia, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	None
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) [G]§ 115.352(2)(C) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1)	No compressor seal, contacting a process fluid with a TVP of 0.044 psia or less, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	None
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) [G]§ 115.352(2)(C) § 115.352(3) § 115.352(5) § 115.352(7)	No compressor seal, in hydrogen service or equipped with a shaft seal system, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	None
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) [G]§ 115.352(2)(C) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(8)	No compressor seals, contacting a process fluid with a TVP >0.044 psia, not in hydrogen service or not equipped with a shaft seal, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	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)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) [G]§ 115.352(2)(C) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1)	No pump seals, contacting a process fluid with a TVP of 0.044 psia or less, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	None
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) [G]§ 115.352(2)(C) § 115.352(3) § 115.352(5) § 115.352(7)	No pump seal, equipped with a shaft seal system, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	None
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) [G]§ 115.352(2)(C) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(8)	No pump seals, contacting a process fluid with a TVP >0.044 psia and not equipped with a shaft seal system, shall be allowed to have a VOC leak, for more than 15 days after discovery, exceeding the specified VOC concentration.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(4)	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)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(6)	Components at a petroleum refinery or synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process, that contact a process fluid that contains less than 10% VOC by weight and components at a natural gas/gasoline processing operation that contact a process fluid that contains less than 1.0% VOC by weight are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(5)	Reciprocating compressors and positive displacement pumps used in natural gas/gasoline processing operations are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(2) § 115.352(9)	Each pressure relief valve equipped with a rupture disk must comply with §115.352(9) and §115.356(3)(C).	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	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)
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(10)	Instrumentation systems, as defined in 40 CFR §63.161 (January 17, 1997), that meet 40 CFR §63.169 (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(11)	Sampling connection systems, as defined in 40 CFR §63.161 (January 17, 1997), that meet the requirements of 40 CFR §63.166(a) and (b) (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
PLANT	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(13)	Components/systems that contact a process fluid containing VOC having a true vapor pressure equal to or less than 0.002 psia at 68 degrees Fahrenheit are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None

Applicable Requirements Summary

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PLANT	EU	60VVa-01	VOC	40 CFR Part 60, Subpart VVa	[G]§ 60.480a(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart VVa	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart VVa	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart VVa	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart VVa	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart VVa
PLANT	EU	61J-01	BENZENE	40 CFR Part 61, Subpart J	§ 61.110(c)(2)	Any equipment in benzene service located at a plant that is designed to produce or use less than 1,000 megagrams (1,102 tons) of benzene per year are exempt from §61.112.	None	§ 61.110(c)(1) § 61.246(i) § 61.246(i)(1)	None
PLANT	EU	61V-01	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-2 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for pumps. §61.242-2(a)-(g)	[G]§ 61.242-2 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(b) [G]§ 61.246(c) [G]§ 61.246(e) [G]§ 61.246(h) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
PLANT	EU	61V-01	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-3 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for compressors. §61.242-3(a)-(i)	[G]§ 61.242-3 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(b) [G]§ 61.246(c) [G]§ 61.246(e) [G]§ 61.246(h) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
PLANT	EU	61V-01	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-4 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for pressure relief devices in gas/vapor service. §61.242-4(a)-(c)	[G]§ 61.242-4 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)

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)
PLANT	EU	61V-01	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-5 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for sampling connection systems. §61.242-5(a)-(c)	[G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
PLANT	EU	61V-01	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-6 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for open-ended valves or lines. §61.242-6(a)-(c)	[G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
PLANT	EU	61V-01	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-7 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10 [G]§ 61.243-1 [G]§ 61.243-2	Comply with standards for valves. §61.242-7(a)-(h)	[G]§ 61.242-7 [G]§ 61.243-1 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(b) [G]§ 61.246(c) [G]§ 61.246(e) [G]§ 61.246(f) [G]§ 61.246(g) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) § 61.247(d) [G]§ 61.247(e)
PLANT	EU	61V-01	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-8 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for pressure relief devices in liquid service. § 61.242-8(a)-(d)	[G]§ 61.242-8 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(b) [G]§ 61.246(c) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
PLANT	EU	61V-01	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-8 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10	Comply with standards for flanges and other connectors. § 61.242-8(a)-(d)	[G]§ 61.242-8 [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.246(a) [G]§ 61.246(b) [G]§ 61.246(c) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)

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)
PLANT	EU	61V-01	VHAP	40 CFR Part 61, Subpart V	[G]§ 61.242-11(f) § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) [G]§ 61.242-10 [G]§ 61.242-11(f) [G]§ 61.242-11(g) § 61.242-11(h) § 61.242-11(i) [G]§ 61.242-11(j) [G]§ 61.242-11(k) § 61.242-11(m)	Except as provided in §61.242-11(i)-(k), each closed vent system shall be inspected according to the procedures and schedule specified in 61.242-11(f)(1) and (2), as applicable. § 61-242-11(f)(1)-(2)	[G]§ 61.242-11(f) [G]§ 61.245(b) [G]§ 61.245(c) [G]§ 61.245(d)	[G]§ 61.242-11(l) [G]§ 61.246(a) [G]§ 61.246(d) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
PLANT	EU	61V-01	VHAP	40 CFR Part 61, Subpart V	§ 61.242-11(d) § 60.18 § 61.242-1(a) § 61.242-1(b) § 61.242-1(d) § 61.242-11(e) § 61.242-11(m)	Flares shall be used to comply with this subpart shall comply with the requirements of §60.18.	[G]§ 61.245(d) [G]§ 61.245(e)	[G]§ 61.246(a) [G]§ 61.246(d) [G]§ 61.246(e) [G]§ 61.246(i) § 61.246(j)	[G]§ 61.247(a) [G]§ 61.247(b) § 61.247(c) [G]§ 61.247(e)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.162(e) § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h)	Equipment that is in organic HAP service less than 300 hours per year is excluded from the requirements of §§63.163 - 63.174 and §63.178 if it is identified as required in §63.181(j).	[G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i) § 63.181(j)	[G]§ 63.182(a) [G]§ 63.182(b)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.164 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Compressors. §63.164(a)-(i)	[G]§ 63.164 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(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)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.165 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief device in gas/vapor service. §63.165(a)-(d)	[G]§ 63.165 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Sampling connection systems. §63.166(a)-(c)	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pumps in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Valves in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Connectors in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(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)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Agitators in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Instrumentation systems. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief devices in liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.170 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Surge control vessels and bottom receivers.	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.173 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Agitators gas/vapor service and in light liquid service. §63.173(a)-(j).	[G]§ 63.173 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(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)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.174 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Connectors in gas/vapor service and in light liquid service. §63.174(a)-(j)	[G]§ 63.174 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.163 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.176	Standards: Pumps in light liquid service. §63.163(a)-(j)	[G]§ 63.163 [G]§ 63.176 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(3) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) § 63.181(h)(8)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.167 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Open-ended valves or lines. §63.167(a)-(e).	[G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(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)
PLANT	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j)	[G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PRO-PROPYLENE	PU	63VVVVV V-01	112 HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11496(b), Table 3 § [G] 63.11497(b) § 63.11496(h), Table 5 § 63.11496(i) § 63.11497(a) [G]§ 63.11495(a)(2) [G]§ 63.11495(a)(4) [G]§ 63.11503 § 63.11495(a) § 63.11495(a)(1) § 63.11495(a)(3) § 63.11495(c) § 63.11496(g)(1) § 63.11496(g)(2) § 63.11496(g)(4) § 63.11496(g)(5) § 63.11496(g)(6) § 63.11496(g)(9) § 63.11497(c) § 63.11501(a) § 63.11501(b)	You must comply with the requirements in paragraphs (b)(1) through (3) of this section for organic HAP emissions from your continuous process vents for each CMPU subject to this subpart using Table 1 organic HAP. If the total resource-effectiveness (TRE) index value for a continuous process vent is less than or equal to 1.0, you must also comply with the emission limits and other requirements in Table 3 to this subpart.	[G]§ 63.11496(b) [G]§ 63.11496(g) [G]§ 63.11496(h)	§ 63.11495(a)(5) § 63.11501(c)(1) § 63.11501(c)(1)(i) § 63.11501(c)(1)(iv) § 63.11501(c)(4) § 63.11501(c)(7)	[G]§ 63.11501(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)
REACTORS	EP	R5270-02	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(c)(1) § 115.722(c)(3) § 115.725(a)(2)(A) § 115.725(a)(2)(B) § 115.725(a)(2)(C) § 115.725(a)(2)(D) § 115.725(a)(3) [G]§ 115.725(a)(4) [G]§ 115.725(l) [G]§ 115.726(a)(2)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 2 of this subchapter must not exceed 1,200 pounds of HRVOC per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.725(a) § 115.725(a)(2)(A) § 115.725(a)(2)(B) § 115.725(a)(2)(C) § 115.725(a)(2)(D) § 115.725(a)(3) § 115.725(a)(3)(B) [G]§ 115.725(a)(4) § 115.725(a)(5) [G]§ 115.725(l) § 115.725(n) ** See Periodic Monitoring Summary	§ 115.726(b)(1) § 115.726(b)(2) § 115.726(b)(3) [G]§ 115.726(g) [G]§ 115.726(h) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	[G]§ 115.725(a)(4) § 115.725(a)(5) § 115.725(n) [G]§ 115.726(a)(2)
REACTORS	EP	R5121-03	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(a)(2) § 115.122(a)(2) § 115.122(a)(2)(B)	No person may allow a vent gas stream to be emitted from the processes specified in §115.121(a)(2)(A)-(E), unless the vent gas stream is controlled properly in accordance with §115.122(a)(2).	[G]§ 115.125 § 115.126(1) § 115.126(1)(C) § 115.126(2) ** See Periodic Monitoring Summary	§ 115.126 § 115.126(1) § 115.126(1)(C) § 115.126(2)	None
REACTORS	EP	60RRR-01	VOC/TOC	40 CFR Part 60, Subpart RRR	§ 60.702(a) [G]§ 60.704(b)(5)	For each vent stream, reduce TOC by 98%w or to a TOC concentration of 20 ppmv, on a dry basis corrected to 3% oxygen, whichever is less stringent. If a boiler or process heater is used, introduce vent stream as specified.	§ 60.703(c) § 60.703(c)(1) § 60.703(c)(1)(i) § 60.704(a) § 60.704(b) § 60.704(b)(1) § 60.704(b)(2) § 60.704(b)(3) [G]§ 60.704(b)(4)	§ 60.703(c)(1) § 60.705(b) § 60.705(b)(2)(i) § 60.705(c) § 60.705(c)(4) § 60.705(d)(1) § 60.705(s)	§ 60.705(a) § 60.705(b) § 60.705(b)(2)(i) § 60.705(c) § 60.705(c)(4) § 60.705(k) § 60.705(l) § 60.705(l)(1) § 60.705(l)(2) § 60.705(s)

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)
SLOPLDRK	EU	R5211-01	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.212(a)(1) § 115.212(a)(1)(A) § 115.212(a)(3)(A) § 115.212(a)(3)(A)(ii) § 115.212(a)(3)(B) [G]§ 115.212(a)(3)(C) § 115.212(a)(3)(E) § 115.214(a)(1)(B) § 115.214(a)(1)(C) § 60.18	At operations other than gasoline terminals, gasoline bulk plants, and marine terminals, vapors of VOC with a true vapor pressure of 0.5 psia or greater, must be controlled by one of the following methods.	§ 115.212(a)(3)(B) § 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.214(a)(1)(A)(ii) § 115.214(a)(1)(A)(iii) § 115.215 § 115.215(1) § 115.215(10) [G]§ 115.215(2) [G]§ 115.215(3) § 115.215(4) § 115.215(9) § 115.216(1) § 115.216(1)(B)	§ 115.216 § 115.216(1) § 115.216(1)(B) § 115.216(2) § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(ii) § 115.216(3)(A)(iii) § 115.216(3)(B)	None
SMALLTK2	EU	R5112-04	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
T-136A	EU	R5112-03	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	[G]§ 115.117	§ 115.118(a)(5) § 115.118(a)(6)(A) § 115.118(a)(7)	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)
T-136B	EU	R5112-03	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	[G]§ 115.117	§ 115.118(a)(5) § 115.118(a)(6)(A) § 115.118(a)(7)	None
TURBINES	EU	NSPSKKK K-03GS	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4320(b) § 60.4325 § 60.4333(a) § 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345	New turbine firing fuels other than natural gas with a heat input at peak load of greater than 50 MMBtu/h and less than or equal to 850 MMBtu/h must meet the nitrogen oxides emission standard of 460 ng/J of useful output (3.6 lb/MWh).	§ 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345 § 60.4350(a) § 60.4350(b) § 60.4350(c) § 60.4350(d) § 60.4350(e) § 60.4350(f) § 60.4350(f)(2) § 60.4350(f)(3) § 60.4350(h) [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) § 60.4380 [G]§ 60.4380(b) § 60.4395

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
TURBINES	EU	NSPSKKK K-03GS	SO ₂	40 CFR Part 60, Subpart KKKK	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO ₂ /J (0.060 lb SO ₂ /MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.	§ 60.4365 § 60.4365(b) § 60.4415(a) § 60.4415(a)(1) § 60.4415(a)(1)(ii)	§ 60.4365(b)	§ 60.4375(a)
TURBINES	EU	NSPSKKK K-03GS1	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4320(b) § 60.4325 § 60.4333(a) § 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345	New turbine firing fuels other than natural gas with a heat input at peak load of greater than 50 MMBtu/h and less than or equal to 850 MMBtu/h must meet the nitrogen oxides emission standard of 460 ng/J of useful output (3.6 lb/MWh).	§ 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345 § 60.4350(a) § 60.4350(b) § 60.4350(c) § 60.4350(d) § 60.4350(e) § 60.4350(f) § 60.4350(f)(2) § 60.4350(f)(3) § 60.4350(h) [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) § 60.4380 [G]§ 60.4380(b) § 60.4395

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
TURBINES	EU	NSPSKKK K-03GS1	SO ₂	40 CFR Part 60, Subpart KKKK	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO ₂ /J (0.060 lb SO ₂ /MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.	§ 60.4365 § 60.4365(b) § 60.4415(a) § 60.4415(a)(1) § 60.4415(a)(1)(ii)	§ 60.4365(b)	§ 60.4375(a)
TURBINES	EU	NSPSKKK K-03NGG	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4320(b) § 60.4325 § 60.4333(a) § 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345	New turbine firing natural gas with a heat input at peak load greater than 50 MMBtu/h and less than or equal to 850 MMBtu/h must meet the nitrogen oxides emission standard of 150 ng/J of useful output (1.2 lb/MWh).	§ 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345 § 60.4350(a) § 60.4350(b) § 60.4350(c) § 60.4350(d) § 60.4350(e) § 60.4350(f) § 60.4350(f)(2) § 60.4350(f)(3) § 60.4350(h) [G]§ 60.4400(a) § 60.4400(b) § 60.4400(b)(1) § 60.4400(b)(2) § 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) § 60.4380 [G]§ 60.4380(b) § 60.4395

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
TURBINES	EU	NSPSKKK K-03NGG	SO ₂	40 CFR Part 60, Subpart KKKK	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO ₂ /J (0.060 lb SO ₂ /MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.	§ 60.4365 § 60.4365(b) § 60.4415(a) § 60.4415(a)(1) § 60.4415(a)(1)(ii)	§ 60.4365(b)	§ 60.4375(a)
TURBINES	EU	NSPSKKK K-03NGG1	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4320(b) § 60.4325 § 60.4333(a) § 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345	New turbine firing natural gas with a heat input at peak load greater than 50 MMBtu/h and less than or equal to 850 MMBtu/h must meet the nitrogen oxides emission standard of 150 ng/J of useful output (1.2 lb/MWh).	§ 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345 § 60.4350(a) § 60.4350(b) § 60.4350(c) § 60.4350(d) § 60.4350(e) § 60.4350(f) § 60.4350(f)(2) § 60.4350(f)(3) § 60.4350(h) [G]§ 60.4400(a) § 60.4400(b) § 60.4400(b)(1) § 60.4400(b)(2) § 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) § 60.4380 [G]§ 60.4380(b) § 60.4395

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
TURBINES	EU	NSPSKKK K-03NGG1	SO ₂	40 CFR Part 60, Subpart KKKK	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO ₂ /J (0.060 lb SO ₂ /MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.	§ 60.4365 § 60.4365(b) § 60.4415(a) § 60.4415(a)(1) § 60.4415(a)(1)(ii)	§ 60.4365(b)	§ 60.4375(a)
TURBINES	EU	NSPSKKK K-03NGO	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4320(b) § 60.4325 § 60.4333(a) § 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345	New turbine firing natural gas with a heat input at peak load greater than 50 MMBtu/h and less than or equal to 850 MMBtu/h must meet the nitrogen oxides emission standard of 150 ng/J of useful output (1.2 lb/MWh).	§ 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345 § 60.4350(a) § 60.4350(b) § 60.4350(c) § 60.4350(d) § 60.4350(e) § 60.4350(f) § 60.4350(f)(2) § 60.4350(f)(3) § 60.4350(h) [G]§ 60.4400(a) § 60.4400(b) § 60.4400(b)(1) § 60.4400(b)(2) § 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) § 60.4380 [G]§ 60.4380(b) § 60.4395

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
TURBINES	EU	NSPSKKK K-03NGO	SO ₂	40 CFR Part 60, Subpart KKKK	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO ₂ /J (0.060 lb SO ₂ /MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.	§ 60.4365 § 60.4365(b) § 60.4415(a) § 60.4415(a)(1) § 60.4415(a)(1)(ii)	§ 60.4365(b)	§ 60.4375(a)
TURBINES	EU	NSPSKKK K-03NGO1	NO _x	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4320(b) § 60.4325 § 60.4333(a) § 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345	New turbine firing natural gas with a heat input at peak load greater than 50 MMBtu/h and less than or equal to 850 MMBtu/h must meet the nitrogen oxides emission standard of 150 ng/J of useful output (1.2 lb/MWh).	§ 60.4333(b)(1) § 60.4335(b)(1) § 60.4335(b)(2) § 60.4335(b)(3) § 60.4335(b)(4) [G]§ 60.4345 § 60.4350(a) § 60.4350(b) § 60.4350(c) § 60.4350(d) § 60.4350(e) § 60.4350(f) § 60.4350(f)(2) § 60.4350(f)(3) § 60.4350(h) [G]§ 60.4400(a) § 60.4400(b) § 60.4400(b)(1) § 60.4400(b)(2) § 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) § 60.4380 [G]§ 60.4380(b) § 60.4395

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
TURBINES	EU	NSPSKKK K-03NGO1	SO ₂	40 CFR Part 60, Subpart KKKK	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO ₂ /J (0.060 lb SO ₂ /MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.	§ 60.4365 § 60.4365(b) § 60.4415(a) § 60.4415(a)(1) § 60.4415(a)(1)(ii)	§ 60.4365(b)	§ 60.4375(a)
UNLOAD	EU	R5211-HIVP	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.212(a)(3) § 115.212(a)(2) § 115.212(a)(3)(A) § 115.212(a)(3)(A)(i) § 115.212(a)(3)(B) [G]§ 115.212(a)(3)(C) § 115.212(a)(3)(D) § 115.214(a)(1)(B) § 115.214(a)(1)(C)	All land-based VOC transfer to or from transport vessels shall be conducted in the manner specified for leak-free operations.	§ 115.212(a)(3)(B) § 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.214(a)(1)(A)(ii) § 115.214(a)(1)(A)(iii)	§ 115.216 § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(iii)	None
UNLOAD	EU	R5211-LOWVP	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(1) § 115.212(a)(2) [G]§ 115.212(a)(7) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of this division, except as specified.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None
V-1-L4	EU	R5211-02	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(3) [G]§ 115.212(a)(7) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Liquefied petroleum gas. All loading and unloading of liquefied petroleum gas is exempt from the requirements of this division, except for the specified requirements.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i)	§ 115.216 § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(ii) § 115.216(3)(A)(iii) § 115.216(3)(B)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
V-2-L4	EU	R5211-02	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(3) [G]§ 115.212(a)(7) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Liquefied petroleum gas. All loading and unloading of liquefied petroleum gas is exempt from the requirements of this division, except for the specified requirements.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i)	§ 115.216 § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(ii) § 115.216(3)(A)(iii) § 115.216(3)(B)	None
WWU	EU	63VVVVV V-01	112 HAPS	40 CFR Part 63, Subpart VVVVVV	§ 63.11498(a), Table 6 § 63.11498(b) § 63.11501(a) § 63.11501(b)	You must comply with the requirements in paragraph (a)(1) and (2) of this section and in Table 6, Item 1 to this subpart for all wastewater streams from a CMPU subject to this subpart. If the partially soluble HAP concentration in a wastewater stream is equal to or greater than 10,000 parts per million by weight (ppmw) and the wastewater stream contains a separate organic phase, then you must also comply with Table 6, Item 2 to this subpart for that wastewater stream.	[G]§ 63.11498(a)	[G]§ 63.11501(d) § 63.11501(c)(1) § 63.11501(c)(1)(vi)	None

Additional Monitoring Requirements

Periodic Monitoring Summary 96

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: EXHAUSTVT	
Control Device ID No.: 4000-B	Control Device Type: Other Control Device Type
Control Device ID No.: 4001-B	Control Device Type: Other Control Device Type
Control Device ID No.: 4002-B	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, HRVOC Vent Gas	SOP Index No.: R5720-04
Pollutant: Highly Reactive VOC	Main Standard: § 115.722(c)(1)
Monitoring Information	
Indicator: Temperature	
Minimum Frequency: One point per hour	
Averaging Period: Hourly	
<p>Deviation Limit: If the minimum temperature is below the specified temperatures for emission units 4000-B, 4001-B, or 4002-B detailed in the most recent NSR permit (Permit Nos. 18999 and PSDTX755), while fuel gas is directed to the control device, a potential deviation has occurred. Temperatures below this value are permissible as demonstrated in performance testing conducted in accordance with Permit Nos. 18999 and PSDTX755 and/or any other applicable permit or regulation. In order to determine if a deviation from 30 TAC 115.722(c)(1) has occurred, the HRVOC emissions from all applicable sources at the site will be calculated to conclude whether or not the 1,200 pounds of HRVOC per one-hour block period has been exceeded for the site.</p>	
<p>Periodic Monitoring Text: The temperature shall be continuously monitored and recorded when fuel gas is directed to the control device. Loss of valid data may be exempted provided it does not exceed 5% of the time the control device is operated. The temperature measurement device shall reduce the temperature readings to an averaging period of one hour or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: REACTORS	
Control Device ID No.: 4002-B	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-03
Pollutant: VOC	Main Standard: § 115.121(a)(2)
Monitoring Information	
Indicator: Temperature	
Minimum Frequency: One point per hour	
Averaging Period: Hourly	
<p>Deviation Limit: If the minimum temperature is below the specified temperatures for emission unit 4002-B detailed in the most recent NSR permit (Permit Nos. 18999 and PSDTX755), while reactor vent gas is directed to the control device, a potential deviation has occurred. Temperatures below this value are permissible as demonstrated in performance testing conducted in accordance with Permit Nos. 18999 and PSDTX755 and/or any other applicable permit or regulation.</p>	
<p>Periodic Monitoring Text: The temperature shall be continuously monitored and recorded when reactor vent gas is directed to the control device. Loss of valid data may be exempted provided it does not exceed 5% of the time the control device is operated. The temperature measurement device shall reduce the temperature readings to an averaging period of one hour or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: REACTORS	
Control Device ID No.: 4002-B	Control Device Type: Steam Generating Unit (Boiler)/Process Heater (Design heat input is greater than or equal to 44MW)
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, HRVOC Vent Gas	SOP Index No.: R5270-02
Pollutant: Highly Reactive VOC	Main Standard: § 115.722(c)(1)
Monitoring Information	
Indicator: Temperature	
Minimum Frequency: One Point Per Hour	
Averaging Period: Hourly	
<p>Deviation Limit: : If the minimum temperature is below the specified temperatures for emission unit 4002-B detailed in the most recent NSR permit (Permit Nos. 18999 and PSDTX755), while reactor vent gas is directed to the control device, a potential deviation has occurred. Temperatures below this value are permissible as demonstrated in performance testing conducted in accordance with Permit Nos. 18999 and PSDTX755 and/or any other applicable permit or regulation. In order to determine if a deviation from 30 TAC 115.722(c)(1) has occurred, the HRVOC emissions from all applicable sources at the site will be calculated to conclude whether or not the 1,200 pounds of HRVOC per one-hour block period has been exceeded for the site.</p>	
<p>Periodic Monitoring Text: The temperature shall be continuously monitored and recorded when reactor vent gas is directed to the control device. Loss of valid data may be exempted provided it does not exceed 5% of the time the control device is operated. The temperature measurement device shall reduce the temperature readings to an averaging period of one hour or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice.</p>	

Permit Shield

Permit Shield 100

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		
1-103B	N/A	40 CFR Part 60, Subpart CCCC	The combustion unit does not combust solid waste or any non-hazardous secondary chemicals, since gaseous materials which are not containerized are not considered solid waste.
1-103B	N/A	40 CFR Part 63, Subpart DDDDD	The source is not located at a major source of HAPs as defined in 63.2 or 63.761.
1-104BD	N/A	30 TAC Chapter 112, Sulfur Compounds	Combustion unit does not burn solid fuel.
1-104BD	N/A	40 CFR Part 60, Subpart CCCC	The combustion unit does not combust solid waste or any non-hazardous secondary chemicals, since gaseous materials which are not containerized are not considered solid waste.
1-104BD	N/A	40 CFR Part 60, Subpart Dc	Maximum design heat input capacity >2.9 MW (10 MMBtu/hr) or < 29MW (100 MMBtu/hr).
1-104BD	N/A	40 CFR Part 63, Subpart DDDDD	The source is not located at a major source of HAPs as defined in 63.2 or 63.761.
1-104BD	N/A	40 CFR Part 63, Subpart JJJJJ	The combustion unit is a gas-fired boiler.

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		
4000-B	N/A	40 CFR Part 60, Subpart CCCC	The combustion unit does not combust solid waste or any non-hazardous secondary chemicals, since gaseous materials which are not containerized are not considered solid waste.
4000-B	N/A	40 CFR Part 63, Subpart DDDDD	The source is not located at a major source of HAPs as defined in 63.2 and 63.761.
4001-B	N/A	40 CFR Part 60, Subpart CCCC	The combustion unit does not combust solid waste or any non-hazardous secondary chemicals, since gaseous materials which are not containerized are not considered solid waste.
4001-B	N/A	40 CFR Part 60, Subpart Db	Duct burners regulated under NSPS KKKK are exempted from the requirements of NSPS Db.
4001-B	N/A	40 CFR Part 63, Subpart DDDDD	The source is not located at a major source of HAPs as defined in 63.2 and 63.761.
4001-B	N/A	40 CFR Part 63, Subpart JJJJJ	The combustion unit is a gas-fired boiler.
4002-B	N/A	40 CFR Part 60, Subpart CCCC	The combustion unit does not combust solid waste or any non-hazardous secondary chemicals, since gaseous materials which are not containerized are not considered solid waste.

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		
4002-B	N/A	40 CFR Part 60, Subpart Db	Duct burners regulated under NSPS KKKK are exempted from the requirements of NSPS Db.
4002-B	N/A	40 CFR Part 63, Subpart DDDDD	The source is not located at a major source of HAPs as defined in 63.2 and 63.761.
4002-B	N/A	40 CFR Part 63, Subpart EEE	The waste heat boiler is not a hazardous waste combustor or incinerator.
4002-B	N/A	40 CFR Part 63, Subpart JJJJJ	The combustion unit is a gas-fired boiler.
CTOWER	N/A	40 CFR Part 63, Subpart Q	Does not use chromium-based water treatment chemicals
CTOWER	N/A	40 CFR Part 63, Subpart VVVVV	Heat exchange system has cooling water flow rate < 8,000 gpm and meets one or more of the conditions in §63.104(a).
DEGR-1	N/A	30 TAC Chapter 115, Degreasing Processes	Degreaser uses a solvent with a TVP less than or equal to 0.6 psia with a drain area less than 16 square inches and waste solvent is disposed of in enclosed containers.

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		
DEGR-1	N/A	40 CFR Part 63, Subpart T	Not a solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform, or any combination > 5% weight as a cleaning and/or drying agent.
F-1-G-B	N/A	30 TAC Chapter 115, Industrial Wastewater	Emission unit is a stormwater collection system and does not contain any affected VOC wastewater streams.
FLAREVT	N/A	40 CFR Part 60, Subpart RRR	Facility constructed, modified, or reconstructed prior to June 29, 1990.
FUELGAS	N/A	30 TAC Chapter 115, Vent Gas Controls	Not a process vent by definition, since vents are recovered into a fuel gas system for reuse as fuel value.
FUELGAS	N/A	40 CFR Part 63, Subpart VVVVVV	Not a continuous process vent by definition, since vents are recovered into a fuel gas system for reuse as fuel value per 63.107(h)(6).
GRP-PRESSTK	161-F, 204-F, 210-F, 214-F, 301-FA, 301-FB, 302-F, 303-F	40 CFR Part 60, Subpart Kb	Not a storage vessel by definition since this is a pressure vessel designated to operate in excess of 204.9 kPa (15 psig) without emissions to the atmosphere except under emergency conditions.
GRP-PRESSTK	161-F, 204-F, 210-F, 214-F, 301-FA, 301-FB, 302-F, 303-F	40 CFR Part 63, Subpart VVVVVV	Not a storage vessel by definition

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		
LD-CAT	N/A	30 TAC Chapter 115, Loading and Unloading of VOC	The catalyst loading does not qualify as a VOC transfer operation into a transport vessel.
M-102A	N/A	40 CFR Part 60, Subpart K	Tank construction, modification, or reconstruction commenced on or before June 11, 1973.
M-102B	N/A	40 CFR Part 60, Subpart K	Tank construction, modification, or reconstruction commenced on or before June 11, 1973.
PROCESSTK	N/A	30 TAC Chapter 115, Storage of VOCs	Vessel is considered a process tank that does not meet the definition of a storage vessel.
PROCESSTK	N/A	40 CFR Part 60, Subpart Kb	Vessel is considered a process tank that does not meet the definition of a storage vessel.
PRO-PROPYLENE	N/A	40 CFR Part 63, Subpart F	Not located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act.
SMALLTK1	N/A	30 TAC Chapter 115, Storage of VOCs	The tank capacity is less than 1,000 gallons.
SMALLTK1	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons and/or the maximum true vapor pressure is less than 0.5 psi.

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		
SMALLTK2	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons and/or the maximum true vapor pressure is less than 0.5 psi.
T-136A	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons
T-136B	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is < 19,800 gallons.
TO-STK	N/A	30 TAC Chapter 117, Subchapter B	The unit has a rated capacity less than 40 MMBtu/hr.
TOTES	N/A	30 TAC Chapter 115, Storage of VOCs	The tank capacity is less than 1,000 gallons.
TOTES	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is < 19,800 gallons.
TURBINES	N/A	30 TAC Chapter 117, Subchapter B	Turbine is used as a chemical processing gas turbine.
TURBINES	N/A	40 CFR Part 60, Subpart GG	Stationary combustion turbines regulated under NSPS KKKK are exempt from the requirements of NSPS GG.
TURBINES	N/A	40 CFR Part 63, Subpart YYYY	The source is not located at a major source of HAPs.
WTC	N/A	30 TAC Chapter 115, Storage of VOCs	The tank capacity is less than 1,000 gallons.
WTC	N/A	40 CFR Part 60, Subpart Kb	The tank capacity is < 19,800 gallons.

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		
WWU	N/A	30 TAC Chapter 115, Industrial Wastewater	The site does not generate any wastewater streams with VOC concentrations greater than 10,000 ppmw or greater than 1,000 ppmw and flowrate greater than 2.64 gpm.

New Source Review Authorization References

New Source Review Authorization References..... 108

New Source Review Authorization References by Emission Unit 109

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.: GHGPSDTX137	Issuance Date: 06/24/2016
PSD Permit No.: PSDTX755M1	Issuance Date: 07/12/2016
Nonattainment (NA) Permits	
NA Permit No.: N216	Issuance Date: 07/12/2016
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.: 18999	Issuance Date: 07/12/2016
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.264	Version No./Date: 09/04/2000
Number: 106.265	Version No./Date: 09/04/2000
Number: 106.355	Version No./Date: 11/01/2001
Number: 106.371	Version No./Date: 09/04/2000
Number: 106.373	Version No./Date: 09/04/2000
Number: 106.412	Version No./Date: 09/04/2000
Number: 106.433	Version No./Date: 09/04/2000
Number: 106.451	Version No./Date: 09/04/2000
Number: 106.452	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.473	Version No./Date: 09/04/2000
Number: 106.475	Version No./Date: 09/04/2000
Number: 106.476	Version No./Date: 09/04/2000
Number: 106.492	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.512	Version No./Date: 09/04/2000
Number: 6	Version No./Date: 01/08/1980

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
1-103B	Regen Heater	18999
1-104BD	Auxiliary Boiler	18999, PSDTX755M1
1-105A	Main Flare	18999, N216
161-F	C4 Storage	18999
204-F	C3 Storage	18999
210-F	C4 Storage	18999
214-F	C3 Storage	18999
301-FA	C3 Storage	18999
301-FB	C3 Storage	18999
302-F	C3 Storage	18999
303-F	C3 Storage	18999
4000-B	Charge Gas Heater	18999, GHGPSDTX137, PSDTX755M1, N216
4001-B	Regen Air Heater	18999, GHGPSDTX137, PSDTX755M1, N216
4002-B	Waste Heat Boiler	18999, GHGPSDTX137, PSDTX755M1, N216
4026-U	Waste Heat Boiler Stack	18999, GHGPSDTX137, PSDTX755M1, N216
4030-EJ	Steam Eductor	18999, N216
501-D	MAPD Converter	18999
CTOWER	Cooling Towers	18999, GHGPSDTX137, PSDTX755M1, N216
DEGR-1	Degreaser	18999

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
DISTILLATION	Distillation Columns	18999
ENGINES	Diesel Engines	6/01/08/1980
EXHAUSTVT	HRVOC Applicable Process Vents to Fuel Gas	18999
F-1-G-B	Stormwater System	18999
F-1-L4	Flare KO Pot Waste Loading	18999
FLAREVT	Vents Routed to Flare Header	18999
FUELGAS	Vents Recovered to Fuel Gas	18999
LD-CAT	Catalyst Handling	18999
LD-SLUDGE	CPI Sludge Loading	18999
LD-TAR	Cracking Tar Truck Loading	18999
M-1002	Storage Tank	18999, N216
M-102A	Storage Tank	18999
M-102B	Storage Tank	18999
M-222	Storage Tank	18999, N216
M-223	Storage Tank	18999, N216
PLANT	Fugitive Emissions	18999, GHGPSDTX137, N216
PROCESSTK	Process Tanks	18999
PRO-PROPYLENE	Propylene Process Unit	18999
REACTORS	Unit Reactors	18999

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
SLOPLDRK	Slop Oil Emulsion Truck Loading	18999
SMALLTK1	Fuel Tank	18999
SMALLTK2	Storage Tanks	18999
T-136A	Storage Tank	18999
T-136B	Storage Tank	18999
TO-STK	Thermal Oxidizer	18999
TOTES	Chemical and Additive Tanks	18999
TURBINES	Gas Turbines	18999, GHGPSDTX137, PSDTX755M1, N216
UNLOAD	Site Unloading Activities	18999
V-1-L4	Propylene Loading from Truck Rack	18999
V-2-L4	Propylene Loading from Rail Rack	18999
WTC	Water Treatment Chemical Storage	18999
WWU	Wastewater Treatment Plant Sources	18999

Appendix A

Acronym List 113

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
EIP	El Paso (nonattainment area)
EP	emission point
EPA	U.S. Environmental Protection Agency
EU	emission unit
FCAA Amendments	Federal Clean Air Act Amendments
FOP	federal operating permit
GF	grandfathered
gr/100 scf	grains per 100 standard cubic feet
HAP	hazardous air pollutant
H/G/B	Houston/Galveston/Brazoria (nonattainment area)
H ₂ S	hydrogen sulfide
ID No.	identification number
lb/hr	pound(s) per hour
MMBtu/hr	Million British thermal units per hour
MRRT	monitoring, recordkeeping, reporting, and testing
NA	nonattainment
N/A	not applicable
NADB	National Allowance Data Base
NO _x	nitrogen oxides
NSPS	New Source Performance Standard (40 CFR Part 60)
NSR	New Source Review
ORIS	Office of Regulatory Information Systems
Pb	lead
PBR	Permit By Rule
PM	particulate matter
ppmv	parts per million by volume
PSD	prevention of significant deterioration
RO	Responsible Official
SO ₂	sulfur dioxide
TCEQ	Texas Commission on Environmental Quality
TSP	total suspended particulate
TVP	true vapor pressure
U.S.C.	United States Code
VOC	volatile organic compound

Appendix B

Major NSR Summary Table 115

Major NSR Summary Table

Permit Number: 18999/PSDTX755M1/N216			Issuance Date: 7/12/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
4061-JT	Gas Turbine 4061 MSS	NOx	70.00	2.16	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		CO	30.00	0.72	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		SO ₂	0.68	0.02	9, 10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 63
		PM (13)	1.32	0.05	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM ₁₀	1.32	0.05	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM _{2.5}	0.94	0.03	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		VOC	0.42	0.06	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
4062-JT	Gas Turbine 4062 MSS	NOx	70.00	2.16	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		CO	30.00	0.72	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		SO ₂	0.68	0.02	9, 10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 63
		PM (13)	1.32	0.05	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM ₁₀	1.32	0.05	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM _{2.5}	0.94	0.03	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		VOC	0.42	0.06	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
4063-JT	Gas Turbine 4063 MSS	NOx	70.00	2.16	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		CO	30.00	0.72	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		SO ₂	0.68	0.02	9, 10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 63
		PM (13)	1.32	0.05	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM ₁₀	1.32	0.05	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM _{2.5}	0.94	0.03	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		VOC	0.42	0.06	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
4064-JT	Gas Turbine 4064 MSS	NOx	70.00	2.16	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		CO	30.00	0.72	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		SO ₂	0.68	0.02	9, 10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 63
		PM (13)	1.32	0.05	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM ₁₀	1.32	0.05	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM _{2.5}	0.94	0.03	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		VOC	0.42	0.06	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63

Major NSR Summary Table

Permit Number: 18999/PSDTX755M1/N216			Issuance Date: 7/12/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
4065-JT	Gas Turbine 4065 MSS	NOx	87.50	2.70	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 61, 63
		CO	37.50	0.90	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		SO ₂	0.85	0.03	9, 10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 63
		PM (13)	1.65	0.06	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM ₁₀	1.65	0.06	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM _{2.5}	1.65	0.06	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		VOC	0.53	0.02	10, 11, 42, 43	10, 11, 42, 43, 63	51, 62, 63
4061-JT	Gas Turbine 4061 Bypass Valve	NOx	0.23	0.87	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		CO	0.10	0.29	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		SO ₂	0.01	0.01	9, 10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 63
		PM	0.01	0.01	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM ₁₀	0.01	0.01	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM _{2.5}	0.01	0.01	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		VOC (6)	1.52	0.01	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
		Ethylene	0.01	0.01	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
	Propylene	0.01	0.01	4, 10, 11, 42, 43	10, 11, 42, 43, 63	51, 63	
4062-JT	Gas Turbine 4062 Bypass Valve	NOx	0.23	0.87	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		CO	0.10	0.29	10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 63
		SO ₂	0.01	0.01	9, 10, 11, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM	0.01	0.01	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM ₁₀	0.01	0.01	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM _{2.5}	0.01	0.01	10, 11, 13, 42, 43	10, 11, 42, 43, 63	51, 63
		VOC (6)	1.52	0.01	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
		Ethylene	0.01	0.01	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
	Propylene	0.01	0.01	4, 10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63	
4063-JT	Gas Turbine 4063 Bypass Valve	NOx	0.23	0.87	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		CO	0.10	0.29	10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 63
		SO ₂	0.01	0.01	9, 10, 11, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM	0.01	0.01	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63

Major NSR Summary Table

Permit Number: 18999/PSDTX755M1/N216			Issuance Date: 7/12/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		PM ₁₀	0.01	0.01	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM _{2.5}	0.01	0.01	10, 11, 13, 42, 43	10, 11, 42, 43, 63	51, 63
		VOC (6)	1.52	0.01	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
		Ethylene	0.01	0.01	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
		Propylene	0.01	0.01	4, 10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
4064-JT	Gas Turbine 4064 Bypass Valve	NOx	0.23	0.87	10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
		CO	0.10	0.29	10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 63
		SO ₂	0.01	0.01	9, 10, 11, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM	0.01	0.01	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM ₁₀	0.01	0.01	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM _{2.5}	0.01	0.01	10, 11, 13, 42, 43	10, 11, 42, 43, 63	51, 63
		VOC (6)	1.52	0.01	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
		Ethylene	0.01	0.01	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
		Propylene	0.01	0.01	4, 10, 11, 42, 43	10, 11, 42, 43, 53, 63	51, 63
4065-JT	Gas Turbine 4065 Bypass Valve	NOx	0.23	0.87	10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 61, 63
		CO	0.10	0.29	9, 10, 11, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		SO ₂	0.01	0.01	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM	0.01	0.02	10, 11, 13, 42, 43	10, 11, 13, 42, 43, 63	51, 63
		PM ₁₀	0.01	0.02	10, 11, 13, 42, 43	10, 11, 42, 43, 63	51, 63
		PM _{2.5}	0.01	0.02	10, 11, 42, 43	10, 11, 42, 43, 63	51, 63
		VOC (6)	< 0.01	0.01	10, 11, 42, 43	9, 10, 11, 42, 43, 63	51, 62, 63
4026-U	Waste Heat Boiler/SCR1 Normal Operations	NOx	44.04	107.16	5, 7, 10, 11, 12, 15, 19, 22, 24, 25	5, 7, 10, 11, 12, 15, 19, 22, 24, 25, 39, 40	5, 7, 22, 24, 25, 41, 60, 61
		CO	53.61	143.51	7, 10, 11, 12, 15, 19, 22, 24, 25	7, 10, 11, 12, 15, 19, 22, 24, 25, 39, 40	7, 22, 24, 25, 41
		VOC (6)	10.77	32.80	7, 10, 11, 15, 19, 22, 24	7, 10, 11, 15, 19, 22, 24, 39, 40	7, 22, 24, 41, 62
		SO ₂	20.42	29.82	9, 10, 11, 15, 22, 24	9, 10, 11, 15, 22, 24, 39, 40	22, 24, 41
		PM (13)	16.68	58.17	10, 11, 13, 22, 24	10, 11, 13, 22, 24, 40	22, 24
		PM ₁₀	16.68	58.17	10, 11, 13, 22, 24	10, 11, 13, 22, 24, 40	22, 24

Major NSR Summary Table

Permit Number: 18999/PSDTX755M1/N216			Issuance Date: 7/12/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		PM _{2.5}	16.68	58.17	10, 11, 13, 22, 24	10, 11, 13, 22, 24, 40	22, 24
		NH ₃	18.08	55.45	10, 11, 12, 15, 22, 24, 25	10, 11, 12, 15, 22, 24, 25, 40	22, 24, 25, 41
		Ethylene	10.77	24.60	10, 11, 22	10, 11, 22, 40	22
		Propylene	10.77	8.20	4, 10, 11, 22	10, 11, 22, 40	22
	Waste Heat Boiler/SCR1 Maintenance, Startup, and Shutdown (MSS) Activities	NOx	73.40	-	42, 43	42, 43, 53	
		CO	119.14	-	42, 43	42, 43, 53	
		NH ₃	54.25	-	42, 43	42, 43	
1-103B	Regenerator Heater	NOx	0.25	0.33	10	10, 40	
		CO	0.22	0.29	10	10, 40	
		VOC (6)	0.01	0.01	10	10, 40	
		SO ₂	0.04	0.05	9, 10	9, 10, 40	
		PM ₁₀	0.02	0.02	10, 13	10, 13, 40	
		PM _{2.5}	0.02	0.02	10, 13	10, 13, 40	
		Ethylene	0.01	0.01	10	10, 40	
		Propylene	0.01	0.01	4, 10	10, 40	
2205-1	Process Water Tanks	VOC	2.43	0.06	6, 30, 32	6, 30, 32, 40	6
		Benzene	0.07	0.01	6, 30, 32	6, 30, 32, 40	6
2205-2	Process Water Tanks	VOC	1.21	0.01	6, 30, 32	6, 30, 32, 40	6
		Benzene	0.04	0.01	6, 30, 32	6, 30, 32, 40	6
2300-1	Process Water Tanks	VOC	4.44	0.12	6, 30, 32	6, 30, 32, 40	6
		Benzene	0.13	0.01	6, 30, 32	6, 30, 32, 40	6
2300-2	Outfall Water Tanks	VOC	1.28	0.01	6	6	6
		Benzene	0.04	0.01	6	6	6
M-222	Storage Tank	VOC	0.10	0.16	5, 38	5, 38	5, 62
		Butadiene	0.01	0.02	5, 38	5, 38	5
		Benzene	0.03	0.05	5, 38	5, 38	5
M-223	Storage Tank	VOC	0.15	0.16	5, 38	5, 38	5, 62
		Butadiene	0.02	0.02	5, 38	5, 38	5

Major NSR Summary Table

Permit Number: 18999/PSDTX755M1/N216			Issuance Date: 7/12/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		Benzene	0.04	0.05	5, 38	5, 38	5
M-1002	Storage Tank	VOC	0.76	1.92	4, 5, 38	5, 38	5, 62
		Butadiene	0.24	0.61	4, 5, 38	5, 38	5
		Benzene	0.46	1.15	4, 5, 38	5, 38	5
T-136A	Storage Tank	VOC	1.89	0.08	38	38	
T-136B	Storage Tank	VOC	1.21	0.04	38	38	
4000-B	Charge Gas Heater/SCR2 Normal Operations	NOx	3.70	13.25	10, 11, 16, 17, 22, 24, 25	10, 11, 16, 17, 22, 24, 25, 39, 40	22, 24, 25
		CO	17.83	18.92	10, 11, 16, 17, 22, 24, 25	10, 11, 16, 17, 22, 24, 25, 39, 40	22, 24, 25
		VOC (6)	0.69	2.84	10, 11, 17, 22, 24	10, 11, 17, 22, 24, 39, 40	20, 24
		SO ₂	6.48	18.92	9, 10, 11, 22, 24	9, 10, 11, 22, 24, 40	22, 24
		PM (13)	1.24	3.22	10, 11, 13, 22, 24	10, 11, 13, 22, 24, 40	22, 24
		PM ₁₀	1.19	3.07	10, 11, 13, 22, 24	10, 11, 13, 22, 24, 40	22, 24
		PM _{2.5}	1.19	3.07	10, 11, 13, 22, 24	10, 11, 13, 22, 24, 40	22, 24
		NH ₃	2.18	8.89	11, 16, 22, 24, 25	11, 16, 22, 24, 25, 40	22, 24, 25
		Ethylene	0.49	2.0	10, 11, 22	10, 11, 22, 40	22
		Propylene	0.12	0.50	4, 10, 11, 22	10, 11, 22, 40	22
4000-B	Charge Gas Heater/SCR2 MSS Activities	NOx	37.04	-	42, 43	42, 43, 53	
		NH ₃	6.02	-	42, 43	42, 43	
1-104BD	Auxiliary Boiler (227.5 MMBTU/hr, LHV)	NOx (8) (PSD)	30.24	105.96	5, 10, 35, 36	5, 10, 35, 36, 40	5, 36, 41, 60
		CO (PSD)	20.74	72.67	10, 35	10, 35, 40	
		VOC (6)	1.92	6.71	10	10, 40	62
		SO ₂	1.26	4.42	5, 9, 10	5, 9, 10, 40	5, 41
		PM ₁₀ (PSD)	2.10	7.36	5, 10, 13	5, 10, 13, 40	5, 41
		PM _{2.5}	2.10	7.36	5, 10, 13	5, 10, 13, 40	5, 41
		Ethylene	1.35	4.73	10	10, 40	
		Propylene	0.24	0.83	4, 10	10, 40	

Major NSR Summary Table

Permit Number: 18999/PSDTX755M1/N216			Issuance Date: 7/12/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
1-105A	Main Flare Normal Operations	NOx	171.51	2.71	26	26	
		CO	883.53	15.57	26	26	
		VOC (12)	809.89	11.72	26, 27	26, 27	
		SO ₂	46.41	0.07	26	26, 40	
		H ₂ S	0.50	0.01	26	26, 40	
		Ethylene	84.03	1.54	26, 27	26, 27	
		Propylene	419.90	6.22	4, 26, 27	26, 27	
		Butene	50.27	0.48	26, 27	26, 27	
		Butadiene	33.51	0.08	26, 27	26, 27	
		Benzene	28.49	0.08	26, 27	26, 27	
	Main Flare MSS Activities	NOx	87.70	11.50	26, 42, 43, 44, 45, 54	26, 42, 43, 44, 45, 54	
		CO	447.00	58.60	26, 42, 43, 44, 45, 54	26, 42, 43, 44, 45, 54	
		VOC (12)	670.00	44.88	26, 27, 42, 43, 44, 45, 54, 55	6, 27, 42, 43, 44, 45, 54, 55	
		SO ₂	24.00	2.77	26, 42, 43, 44, 45, 54	26, 42, 43, 44, 45, 54	
		H ₂ S	0.27	0.02	26, 42, 43, 44, 45, 54	26, 42, 43, 44, 45, 54	
		Ethylene	62.22	3.99	26, 27, 42, 43, 44, 45, 54, 55	26, 27, 42, 43, 44, 45, 54, 55	
		Propylene	488.00	19.94	4, 26, 27, 42, 43, 44, 45, 54, 55	26, 27, 42, 43, 44, 45, 54, 55	
		Butene	48.80	6.38	26, 27, 42, 43, 44, 45, 54, 55	26, 27, 42, 43, 44, 45, 54, 55	
		Butadiene	40.26	0.80	26, 27, 42, 43, 44, 45, 54, 55	26, 27, 42, 43, 44, 45, 54, 55	
		Benzene	30.50	0.80	26, 27, 42, 43, 44, 45, 54, 55	26, 27, 42, 43, 44, 45, 54, 55	
1-105A-109MSS	Main Flare MSS Activities - 109 Splitter Project	NOx	(14)	0.03	26, 42, 43, 44, 45, 54	26, 42, 43, 44, 45, 54	
		CO		0.15	26, 42, 43, 44, 45, 54	26, 42, 43, 44, 45, 54	
		VOC		0.22	26, 27, 42, 43, 44, 45, 54, 55	26, 27, 42, 43, 44, 45, 54, 55	

Major NSR Summary Table

Permit Number: 18999/PSDTX755M1/N216			Issuance Date: 7/12/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
		Propylene		0.07	4, 26, 27, 42, 43, 44, 45, 54, 55	26, 27, 42, 43, 44, 45, 54, 55	
		Butene		0.01	26, 27, 42, 43, 44, 45, 54, 55	26, 27, 42, 43, 44, 45, 54, 55	
		Butadiene		0.01	26, 27, 42, 43, 44, 45, 54, 55	26, 27, 42, 43, 44, 45, 54, 55	
		Benzene		0.01	26, 27, 42, 43, 44, 45, 54, 55	26, 27, 42, 43, 44, 45, 54, 55	
TO-STK	RTO Stack (10) Normal Operations	NOx	0.10	0.28	28, 31	28, 31, 40	
		CO	0.08	0.23	28, 31	28, 31, 40	
		VOC	0.13	0.48	28, 31	28, 31, 40	
		SO ₂	0.01	0.05	9, 28, 31	9, 28, 31, 40	
		PM ₁₀	0.15	0.58	13, 31	13, 31	
	RTO Stack (10) MSS Activities	NOx	0.10	0.01	42, 43, 54	42, 43, 54	
		CO	0.08	0.01	42, 43, 54	42, 43, 54	
		VOC	5.21	0.01	42, 43, 54	42, 43, 54	
		SO ₂	0.01	0.01	42, 43, 54	42, 43, 54	
		PM ₁₀	0.01	0.01	42, 43	42, 43	
DC-TANK	Fuel Tank	VOC	0.06	0.01			
TO-TANK	Fuel Tank	VOC	0.06	0.01			
185-F	Fuel Tank	VOC	0.02	0.01			
187-F	Fuel Tank	VOC	0.02	0.01			
F-1-101-U	Cooling Tower (8 cell) (5)	VOC (12)	3.70	3.86	37	37, 40	
		PM	0.55	1.93			
		PM ₁₀	0.31	1.24	37	37, 40	
		PM _{2.5}	< 0.01	0.02	37	37, 40	
		Ethylene	0.93	0.39	37	37, 40	
		Propylene	3.66	1.93	4, 37	37, 40	
		Butene	0.01	0.01	37	37, 40	
		Butadiene	0.01	0.01	37	37, 40	
		Benzene	0.01	0.01	37	37, 40	

Major NSR Summary Table

Permit Number: 18999/PSDTX755M1/N216			Issuance Date: 7/12/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
F-2401-UL	Cooling Tower (3 cell) (5)	VOC (12)	1.39	1.45	37	37, 40	
		PM	0.21	0.72	37	37, 40	
		PM ₁₀	0.12	0.46	37	37, 40	
		PM _{2.5}	< 0.01	< 0.01	37	37, 40	
		Ethylene	0.14	0.15	37	37, 40	
		Propylene	0.70	0.73	4, 37	37, 40	
		Butene	0.01	0.01	37	37, 40	
		Butadiene	0.01	0.01	37	37, 40	
		Benzene	0.01	0.01	37	37, 40	
F-1-L4	Loading Flare K/O	VOC	0.57	0.01			
LD-SLUDGE	Loading CPI Sludge	VOC	0.24	0.01			
LD-TAR	Loading Tar	VOC	2.63	0.08			
ENG-R	RTO Compressor	NOx	2.43	10.62			
		CO	0.24	2.12			
		VOC	0.08	0.34			
		SO ₂	0.49	0.99			
		PM ₁₀	0.23	1.06			
BLOW-VENT	Blow Down Vents (11)	VOC	4.94	0.98	3	3	
ANA-VENT	Process Analyzers Vents (9)	NOx	0.01	0.01			
		CO	0.01	0.01			
		VOC (6)	0.05	0.23			
		Propylene	0.02	0.08	4		
V-1-L4	Propylene Truck Loading	VOC	0.24	0.40	4		
V-2-L4	Propylene Rail Loading	VOC	0.12	0.03	4		
267-F	Storage Tank	VOC	0.02	0.01	38	38	
M-102A	Storage Tank	VOC	0.19	0.01	38	38	
M-102B	Storage Tank	VOC	0.26	0.01	38	38	
137-F	Storage Tank	VOC	0.01	0.01			
179-F/797F	Fuel Tank	VOC	0.21	0.01			

Major NSR Summary Table

Permit Number: 18999/PSDTX755M1/N216			Issuance Date: 7/12/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
F-1-GB	Stormwater System	VOC	5.43	1.25			
MAINT-METER	Meter Calibrations	VOC	0.01	0.01	42, 43	42, 43	
PLANT	Plant Fugitives (5)	VOC (12)	11.58	49.41	5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8, 62
		Ethylene	0.58	2.47	5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8
		Propylene	5.79	24.71	4, 5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8
		Butene	0.12	0.49	5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8
		Butadiene	0.01	0.05	5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8
		Benzene	0.12	0.49	5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8
PLANT-109	Plant Fugitives - 109 Splitter	VOC	0.05	0.23	5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8
		Propylene	0.02	0.09	4, 5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8
		Butene	0.01	0.01	5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8
		Butadiene	0.01	0.01	5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8
		Benzene	0.01	0.01	5, 6, 7, 8, 27	5, 6, 7, 8, 27	5, 6, 7, 8
A-206	Regenerator Scrubber	VOC	0.67	0.01			
TOTES	Containers	VOC	1.51	0.15			
WTC	Containers	Caustic	1.39	0.14			
LD-CAT	Catalyst Handling	PM ₁₀	0.04	0.03	42, 43	42, 43	
		PM _{2.5}	0.03	0.02	42, 43	42, 43	
CAT-TRANSFER1	Catalyst Transfer	PM ₁₀	0.09	0.02	42, 43	42, 43	
		PM _{2.5}	0.06	0.02	42, 43	42, 43	
CAT-CLEAR1	Catalyst Clearing	PM ₁₀	11.14	0.13	42, 43	42, 43	
		PM _{2.5}	8.35	0.10	42, 43	42, 43	
PLANT NH3	Ammonia Handling	NH ₃	0.18	0.57	20, 21	20, 21, 40	5, 7, 8
DEGR	Cold Solvent Cleaner	VOC	0.01	0.05			
PLANT MSS	Process System MSS	VOC (12)	43.84	8.00	44	44	
		Ethylene	2.83	0.52	44	44	
		Propylene	18.84	3.44	4, 44	44	
		Butene	12.50	0.05	44	44	
		Butadiene	0.50	0.01	44	44	
		Benzene	1.00	0.01	44	44	

Major NSR Summary Table

Permit Number: 18999/PSDTX755M1/N216			Issuance Date: 7/12/2016					
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements	
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.	
PLANT-109 MSS	Plant-109 Splitter Process Systems MSS	VOC	(15)	0.44	44		44	
		Propylene		0.13	4, 44		44	
		Butene		0.01	44		44	
		Butadiene		0.01	44		44	
		Benzene		0.01	44		44	
PLANT MSS	Transfer System MSS	VOC	0.19	0.01	42, 43, 49		42, 43, 49	
PLANT MSS	Storage System MSS	VOC	2.29	1.03	42, 43, 47, 48		42, 43, 47, 48, 50	62
PLANT MSS	Tank M-1002 MSS	VOC	294.39	0.69	42, 43, 47		42, 43, 47	
PLANT MSS	Tank M-223 MSS	VOC	31.25	0.04	42, 43, 47		42, 43, 47	
PLANT MSS	Tank M-224 MSS	VOC	31.25	0.04	42, 43, 47		42, 43, 47	
PLANT MSS	Blasting	PM (13)	0.12	0.02	42, 43, 59		42, 43, 59	
		PM ₁₀	0.03	0.01	42, 43, 59		42, 43, 59	
		PM _{2.5}	0.01	0.01	42, 43, 59		42, 43, 59	
PLANT MSS	Painting	VOC	13.01	1.59	42, 43, 57		42, 43, 57	
		PM	0.25	0.06	42, 43, 57		42, 43, 57	
		PM ₁₀	0.25	0.06	42, 43, 57		42, 43, 57	
		PM _{2.5}	0.25	0.06	42, 43, 57		42, 43, 57	
4030-EJ	Steam Eductor Maintenance, Startup, and Shutdown (MSS)	NOx	2.54	2.39	42, 43		42, 43	51
		CO	191.11	1.61	42, 43		42, 43	51
		SO ₂	0.10	0.01	42, 43		42, 43	51
		VOC (12)	260.81	5.10	42, 43		42, 43	51
		Ethylene	13.17	0.81	42, 43		42, 43	51
		Propylene	39.24	1.27	4, 42, 43		42, 43	51
		Butene	2.60	0.02	42, 43		42, 43	51
		Butadiene	0.13	0.01	42, 43		42, 43	51
		Benzene	0.26	0.01	42, 43		42, 43	51

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) NOx - total oxides of nitrogen

CO - carbon monoxide

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

SO₂ - sulfur dioxide

PM - total particulate matter, suspended in the atmosphere, including PM10 and PM2.5, as represented

PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM2.5, as represented

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

NH₃ - ammonia

H₂S - hydrogen sulfide

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) The VOC includes HRVOC chemicals; ethylene and propylene.
- (7) Emissions vent to carbon canister when RTO is not in operation.
- (8) The NOx emission rate is based on the boiler firing plant fuel gas containing hydrogen.
- (9) Emissions for analyzer vents AT9056, AT9057, AT9058, AT9059, AT9090, and AT9095 are included in EPN ANA-VENT.
- (10) The following vents are routed to the RTO when the RTO is in operation: 2004-1 and 2004-2.
- (11) The EPN BLOW-VENT (Facility Identification Nos. 102C, 116J, 117J, 157F, and 210F) emissions represent normal operation values. Startup, shutdown, and maintenance emissions are not authorized from this EPN.
- (12) The VOC includes HRVOC chemicals; ethylene, propylene, butene, and butadiene.
- (13) The PM includes PM₁₀ and PM_{2.5}.
- (14) Hourly allowable emission rates for 109 Splitter project are included in the emissions rates for Main Flare MSS Activities at EPN 1-105A.
- (15) Hourly allowable emission rates for the 109 Splitter project are included in the emission rates for Process Systems MSS at EPN Plant MSS.

Major NSR Summary Table

Permit Number: GHGPSDTX137		Issuance Date: 6/24/2016					
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.
4000-B	Charge Gas Heater/SCR2	CO ₂ (5)	-	232,901	2, 4, 6, 9	2, 4, 6, 9, 11, 12, 13	
		CH ₄ (5)	-	13	2, 4, 6, 9	2, 4, 6, 9, 11, 12, 13	
		N ₂ O (5)	-	3	2, 4, 6, 9	2, 4, 6, 9, 11, 12, 13	
		CO ₂ e	-	233,960	2, 4, 6, 9	2, 4, 6, 9, 11, 12, 13	
4026-B	Waste Heat Boiler/SCR1	CO ₂ (5)	-	775,068	2, 5, 6	2, 5, 6, 11, 12, 13	
		CH ₄ (5)	-	27	2, 5, 6	2, 5, 6, 11, 12, 13	
		N ₂ O (5)	-	4	2, 5, 6	2, 5, 6, 11, 12, 13	
		CO ₂ e	-	777,066	2, 5, 6	2, 5, 6, 11, 12, 13	
4065-JT	Gas Turbine 4065 MSS	CO ₂ (5)	-	1,053	2, 6	2, 6, 11, 12, 13	
		CH ₄ (5)	-	0.02	2, 6	2, 6, 11, 12, 13	
		N ₂ O (5)	-	<0.01	2, 6	2, 6, 11, 12, 13	
		CO ₂ e	-	1,054	2, 6	2, 6, 11, 12, 13	
F-1-101-U	Cooling Tower (8 cell)	CH ₄ (5)	-	(6)	7	11, 12, 13	
		CO ₂ e	-	(6)	7	11, 12, 13	
PLANT	Plant Fugitives (6)	CH ₄ (5)	-	(6)	8	11, 12, 13	
		CO ₂ e	-	(6)	8	11, 12, 13	

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 of fugitive source name.
- (3) CO₂ - carbon dioxide
 N₂O - nitrous oxide
 CH₄ - methane
 HFCs - hydrofluorocarbons
 PFCs - perfluorocarbons
 SF₆ - sulfur hexafluoride
 CO₂e - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015):
 CO (1), N₂O (298), CH₄(25), SF₆ (22,800), HFC (various), PFC (various)

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. These rates include emissions from maintenance, startup, and shutdown.
- (5) Emission rate is given for informational purposes only and does not constitute enforceable limit.
- (6) There are no enforceable numerical emission limits for these sources. They are subject to the work practices noted in Special Condition Nos. 7 and 8 of this permit.



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Flint Hills Resources Houston Chemical, LLC
Authorizing the Construction and Operation of
Houston Olefins Plant
Located at Houston, Harris County, Texas
Latitude 29° 42' 17" Longitude -95° 15' 2"

Permits: 18999, N216, and PSDTX755M1

Amendment Date: July 12, 2016

Expiration Date: December 15, 2016

A handwritten signature in black ink, appearing to read "R. Q. A. Hyle".

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 (TAC) Section 116.116 (30 TAC § 116.116)]¹
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]
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)]
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 in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled “Emission Sources--Maximum Allowable Emission Rates.” [30 TAC § 116.115(b)(2)(F)]¹
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification 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 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 “air pollution” as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

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

Special Conditions

Permit Numbers 18999, PSDTX755M1, and N216

Emissions Standards

1. This permit authorizes emissions only from those points listed in the attached table entitled “Emission Sources - Maximum Allowable Emission Rates” (MAERT), and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other conditions specified in the special conditions.
2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 (one) percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to the atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions with exception for relief valves listed in Table 1 below, and safety relief valves that discharge to the atmosphere as a result of fire, malfunction, or failure of utilities provided that: (a) each valve is equipped with a rupture disc upstream; (b) a pressure gauge is installed between the relief valve and rupture disc to monitor disc integrity; and (c) all leaking discs are replaced at the earliest opportunity but no later than the next process shutdown.

Table 1 – Relief Valves (01/16)

Relief Valve	Rupture Disk Required Upstream?
RV137JA1 - PACKING LEAK RV	NO
RV137JA2 - PACKING LEAK RV	NO
RV137JA3 - PACKING LEAK RV	NO
PSV2137JD - PACKING LEAK RV	NO

3. This permit authorizes facility blowdown emissions represented by Emission Point No. (EPN) BLOW VENT for normal operation. These emissions are limited to the maximum allowable emission rates indicated on the MAERT. Calculation methods used to determine compliance with these limits shall be consistent with the methodology used in the permit application. Records shall be kept at the plant site on a two-year rolling basis to demonstrate compliance with this special condition. Maintenance, startup, and shutdown (MSS) emissions are not authorized from this EPN.

Production Limits

4. The maximum propylene and by-product production rate shall not exceed the pounds per hour and pounds per year levels (based on a 12-month rolling average) indicated in the confidential submittal of the April 17, 2015, amendment application to this permit. Monthly records of the propylene and by-products production rate shall be maintained on-

site for a period of five years and made available to representatives of the Texas Commission for Environmental Quality (TCEQ) upon request. **(07/16)**

Federal Program Applicability

5. This facility shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for Steam Generating Units, Gas Turbines and, for Equipment Leaks of VOC in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subparts A, Db, Kb, NNN, RRR, KKKK, VV and VVa. **(01/16)**
6. This facility shall comply with all applicable requirements of EPA regulations on National Emission Standards for Hazardous Air Pollutants (NESHAPS) promulgated for Benzene Waste Operations in 40 CFR Part 61, Subparts A, J, V and FF.
7. This facility shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories promulgated for Closed Vent Systems, Equipment Leaks, Storage Vessels, Generic Maximum Achievable Control Technology, Industrial Boilers and Process Heaters and Stationary Combustion Turbines in 40 CFR Part 63, Subparts A and VVVVVV. **(06/12)**

Leak Detection and Repair Programs

28LAER Piping, Valves, Pumps, Agitators, and Compressors - Intensive Directed Maintenance - 28LAER

8. Except as may be provided for in the Special Conditions of this permit, the following requirements apply to the above-referenced equipment:
 - A. The requirements of paragraphs E, F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

- (1) piping and instrumentation diagram (PID);
- (2) a written or electronic database or electronic file;
- (3) color coding;
- (4) a form of weatherproof identification; or
- (5) designation of exempted process unit boundaries.

- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance.

Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through. In addition, all connectors shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program in accordance with items F thru J of this special condition.

In lieu of the monitoring frequency specified above, connectors may be monitored on a semiannual basis if the percent of connectors leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

Connectors may be monitored on an annual basis if the percent of connectors leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

If the percent of connectors leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

The percent of connectors leaking used in paragraph B shall be determined using the following formula:

$$(Cl + Cs) \times 100/Ct = Cp$$

Where:

- Cl = the number of connectors found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.
- Cs = the number of connectors for which repair has been delayed and are listed on the facility shutdown log.
- Ct = the total number of connectors in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including non-accessible and unsafe to monitor connectors.
- Cp = the percentage of leaking connectors for the monitoring period.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve;
or
 - (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once by the end of the 72 hours period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.
- F. Accessible valves shall be monitored by leak checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program. Non accessible valves shall be monitored by leak-checking for fugitive emissions at least annually using an approved gas analyzer with a directed maintenance program. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown. A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs is being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

A directed maintenance program shall consist of the repair and maintenance of components assisted simultaneously by the use of an approved gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained. Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

- G. All new and replacement pumps, compressors, and agitators shall be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. These seal systems need not be monitored and may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

All other pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly.

- H. Damaged or leaking valves, connectors, compressor seals, pump seals, and agitator seals found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total

emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

- I. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates, times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- J. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), and does not constitute approval of alternative standards for these regulations.

- K. In lieu of the monitoring frequency specified in paragraph F, valves in gas and light liquid service may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

Valves in gas and light liquid service may be monitored on an annual basis if the percent of valves leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

If the percent of valves leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

- L. The percent of valves leaking used in paragraph K shall be determined using the following formula:

$$(Vl + Vs) \times 100/Vt = Vp$$

Where:

Vl = the number of valves found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.

Vs = the number of valves for which repair has been delayed and are listed on the facility shutdown log.

Vt = the total number of valves in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe to monitor valves.

Vp = the percentage of leaking valves for the monitoring period.

- M. Any component found to be leaking by physical inspection (i.e., sight, sound, or smell) shall be repaired or monitored with an approved gas analyzer within 15 days

to determine whether the component is leaking in excess of 500 ppmv of VOC. If the component is found to be leaking in excess of 500 ppmv of VOC, it shall be subject to the repair and replacement requirements contained in this special condition.

Operational Standards and Requirements

- 9. Fuel for the combustion units shall be either pipeline-quality, sweet natural gas containing no more than 0.25 grain of hydrogen sulfide (H₂S), 2.5 grains total sulfur per 100 dscf on an hourly basis, and 0.5 grain total sulfur per 100 dscf on an annual basis, or fuel gas containing no more than 10 grains of total sulfur per 100 dscf on an annual basis. **(01/16)**

The natural gas and fuel gas shall be sampled every six months to determine total sulfur and net heating value. Test results from the fuel supplier may be used to satisfy this requirement.

Approval by the TCEQ Executive Director for another fuel type to be burned in each combustion source can be authorized through a permit by rule claim or a permit amendment.

- 10. The permit holder shall install and operate a fuel flow meter to measure the gaseous fuel usage for each combustion device. The monitored data shall be reduced to an hourly average flow rate using a minimum of four equally spaced data points from each one-hour period. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer’s specifications or at least annually, whichever is more frequent, and shall be accurate to within 5 percent. In lieu of monitoring fuel flow, the permit holder may monitor stack exhaust flow using the flow monitoring specifications of 40 CFR Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A. Fuel for pilot gas usage is not required to be measured and monitored. **(05/10)**

The monitor shall operate as required at least 95 percent of the time when the combustion device is operational, averaged over a rolling 12 month period. 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 that the meter operated over the previous rolling 12-month period.

- 11. The maximum hourly average firing rate from the boiler, heaters and turbines shall not exceed the following: **(07/16)**

Combustion Unit	Heat Input
Charge Gas Heater/SCR2 (EPN 4000-B)	463 MMBtu/hr (HHV)
Waste Heat Boiler/SCR1 (EPN 4026-U, FIN 4026-U)	Combined Firing Limit: 1,690 MMBtu/hr (HHV)
Regeneration Air Heater (EPN 4026-U, FIN 4001-B)	
Gas Turbines (EPN 4026-U, FINs 4061-JT)	

Combustion Unit	Heat Input
through 4065-JT)	

Heat input for each combustion unit shall be monitored and recorded. Monthly records shall be kept at the plant site demonstrating compliance with the maximum hourly average firing rates for each unit and these records shall be kept on a two year rolling basis and shall be made available to the representatives of TCEQ, EPA or any local programs having jurisdiction.

12. The Waste Heat Boiler (EPN 4026-U) shall not exceed a three-hour rolling average of 9 parts per million by volume (ppmvd) nitrogen oxides (NO_x) on a dry basis (ppmvd) corrected to 15 percent oxygen (O₂), a three-hour rolling average of 18 ppmvd carbon monoxide (CO) corrected to 15 percent O₂, and a three-hour rolling average of 10 ppmvd NH₃ corrected to 15 percent O₂. These emissions limits apply only during normal operations and not during MSS activities as specified in Special Condition No. 53. **(07/16)**

The Waste Heat Boiler (EPN 4026-U) shall not exceed a 12-month rolling average of 5 ppmvd NO_x corrected to 15 percent O₂, a 12-month rolling average of 11 ppmvd CO corrected to 15 percent O₂, and a 12-month rolling average of 7 ppmvd NH₃ corrected to 15 percent O₂. These emissions limits apply only during normal operations and not during MSS activities as specified in Special Condition No. 53. **(07/16)**

13. Opacity of emissions from any one stack authorized by this permit shall not exceed 5 percent averaged over a six-minute period. During periods of startup, shutdown, or maintenance, the opacity shall not exceed 15 percent over a six minute period. Opacity shall be determined by the EPA Reference Method 9 during the initial determination of compliance stack sampling.
14. The Waste Heat Boiler (EPN 4026-U) shall be fed by the Gas Turbines (FINs 4061-JT through 4065-JT), Supplemental Air Compressors and the Regeneration Air Heater (FIN 4001-B) exhaust gases and also fuel gas. **(01/16)**
15. The permit holder shall install, maintain, and operate a system to calculate and record average hourly total exhaust gas flow from the Waste Heat Boiler (EPN 4026-U). The calculated data shall be reduced to hourly average data, using a minimum of four equally-spaced data points from each one hour period. The Waste Heater Boiler stack flow rate shall be calculated as the sum of the measured outlet flow of each turbine, the calculated flow from the Regeneration Air Heater, the calculated air flow from the electric air compressors, the calculated flow contribution from catalyst regeneration, and the calculated flow from the Waste Heat Boiler, and shall be recorded. The permit holder shall install and operate a flow meter to measure the outlet flow for the gas turbines. The heat input measured pursuant to Special Condition No. 11 shall be used to calculate the air flow of the Regeneration Air Heater and the Waste Heat Boiler.

Quality-assured (or valid) air flow monitoring data for each turbine must be generated when the turbine is operating. 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 that the turbine operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(07/16)**

Charge Gas Heater - SCR2 Train (EPN 4000-B)

16. Exhaust gases from the Charge Gas Heater shall be routed to a Selective Catalytic Reduction (SCR2) Unit (EPN 4000-B) for NO_x control. Concentrations of NO_x, CO and NH₃ in the stack gases from EPN 4000-B shall not exceed the following on a three-hour rolling average basis: 0.008 lb NO_x/MMBtu, 50 ppmvd CO corrected to 3 percent O₂ and 10 ppmvd NH₃ corrected to 3 percent O₂. These emissions limits apply only during normal heater operations and not during MSS activities as specified in Special Condition No. 53.

Concentrations of NO_x and CO in the stack gases from EPN 4000-B shall not exceed the following on a 12-month rolling average basis: 0.007 lb NO_x/MMBtu and 12 ppmvd CO corrected to 3 percent O₂. These emissions limits apply only during normal heater operations and not during MSS activities as specified in Special Condition No. 53.

Compliance with these factors shall be demonstrated through the initial determination of compliance testing in Special Conditions Nos. 22 through 24 and, continuous determination of compliance testing in Special Condition No. 25. **(07/16)**

17. The hourly average firebox temperature of the Charge Gas Heater shall be maintained at 1275 °F or greater when operating excluding periods of maintenance, startup, and shutdown. The temperature measurement device shall be installed, calibrated, and maintained according to the manufacturer's specifications. **(07/15)**

Quality-assured (or valid) temperature data must be generated when the Charge Gas Heater is operating. 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 that the Charge Gas Heater operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

The above firebox temperature may be revised by an alteration after a performance stack test was conducted to demonstrate compliance with the emission limitations authorized in the attached MAERT.

Waste Heat Boiler - SCR1 Train (EPN 4026-U)

18. Regeneration air from the Catofin reactors shall be routed to the Waste Heat Boiler - SCR1 Train (EPN 4026-U) via the CATOX1 Unit. **(01/16)**

19. The average firebox temperature of the Waste Heat Boiler shall be maintained at 1150°F or greater when operating excluding periods of maintenance, startup, and shutdown. The temperature measurement device shall be installed, calibrated, and maintained according to the manufacturer's specifications. **(05/10)**

Quality-assured (or valid) data must be generated when the Waste Heat Boiler is operating. 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 that the Waste Heat Boiler operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

The above firebox temperature may be revised by an alteration after a performance stack test was conducted to demonstrate compliance with the emission limitations authorized in the attached MAERT.

Aqueous Ammonia (NH₃)

20. The permit holder shall maintain prevention and protection measures for the NH₃ storage system which include (but are not limited to) the following: (A) The NH₃ storage tank area will be marked and secured so as to protect the NH₃ storage tank from accidents that could cause a rupture, and (B) 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. **(03/08)**
21. In addition to the requirements of the Special Condition No. 20 above, the permit holder shall maintain the piping and valves in NH₃ service as follows:
- A. Audio, olfactory, and visual checks for NH₃ leaks within the operating area shall be made once per day.
 - B. As soon as practicable, 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. **(03/08)**

Initial Determination of Compliance

22. The NO_x, CO, VOC, SO₂, NH₃, opacity and O₂ emissions from the Waste Heat Boiler (EPN 4026-U) and Charge Has Heater (EPN 4000-B) were sampled in March 2012 and the test report was submitted to the TCEQ Houston Regional Office. Results of this testing

shall be maintained on site and shall be made available to the TCEQ, local air pollution programs or EPA upon request. **(01/16)**

23. Sampling ports and platforms shall be incorporated into the design of the exhaust stack from the Waste Heat Boiler - SCR1 (EPN 4026-U) and the Charge Gas Heater - SCR2 (EPN 4000-B) according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities". Alternate sampling facility designs may be submitted for approval by the TCEQ Houston Regional Director. **(01/16)**
24. 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 EPNs 4026-U and 4000-B, to demonstrate compliance with the MAERT. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods. **(01/16)**

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60) testing which must have EPA approval shall be submitted to the TCEQ Houston Regional Director.

- A. The TCEQ Houston Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:
 - (1) Proposed 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) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.
 - (7) The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports. The TCEQ Houston Regional Director must approve any deviation from the specified sampling procedures.
- B. Air contaminants and diluents from the Waste Heat Boiler - SCR1 and Charge Gas Heater - SCR2 to be sampled and analyzed include (but are not limited to) NO_x, CO, VOC, SO₂, NH₃, opacity and O₂.

- C. The permit holder shall present at the pretest meeting the manner in which stack sampling will be executed in order to demonstrate compliance with emission standards found in 40 CFR Part 60, Subpart KKKK.
- D. Sampling shall occur within 60 days after achieving the maximum production rate but no later than 180 days after initial start-up of the facilities and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the TCEQ Houston Regional Office.
- E. The facility being sampled shall operate at the maximum production rate during stack emission testing. These conditions/parameters and any other primary operating parameters that effect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Houston Regional Office.

Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

- F. Copies of the final sampling report shall be forwarded to the below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" of the TCEQ Sampling Procedure Manual. The reports shall be distributed as follows:

One copy to the TCEQ Houston Regional Office.

One copy to the EPA Region 6 Office, Dallas.

One copy to each local air pollution control program.

Continuous Determination of Compliance (EPNs 4026-U and 4000-B)

- 25. The holder of this permit shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) to measure and record the concentrations of NO_x, CO, NH₃ and diluent gases (O₂ or carbon dioxide [CO₂]) from the Waste Heat Boiler (EPN 4026-U) and the Charge Gas Heater (EPN 4000-B). The CEMS data for EPN 4000-B shall be used to determine continuous compliance with the NO_x, CO and NH₃ emission limitations in Special Condition No. 16 and the attached MAERT. The CEMS data for EPN 4026-U shall be used to determine continuous compliance with NO_x, CO and NH₃ emission limitations in Special Condition No. 12 and the attached MAERT. **(01/16)**
 - A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the Office of Air, Air Permits Division for requirements to be met.

- 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 and all cylinder gas audit exceedances of ± 15 percent accuracy shall be reported quarterly 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.
- C. The monitoring data shall be reduced to hourly average concentrations using a minimum of four equally-spaced data points from each one hour period. The individual average concentrations shall be reduced to units of the permit allowable emission rate in pound per hour.
- D. All monitoring data and quality-assurance data shall be maintained by the source for a period of 5 years and shall be made available to the TCEQ Executive Director or his designated representative upon request. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.
- E. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.
- F. Quality-assured data must be generated when the emission source is 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 time that the emission source operated over the previous rolling 12-month period. 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 Director.

Flare

26. The Main Flare (EPN 1-105A) shall be designed, and operated in accordance with the following requirements: **(01/16)**
- A. The flare shall be designed such that the combined assist natural gas and waste stream to the flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, start-up, shutdown, and maintenance flow conditions.

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate TCEQ Regional Office to demonstrate compliance with these requirements.
 - B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be

recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications or equivalent.

- C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours.
- D. The flare shall comply with the applicable provisions for Highly-Reactive VOC found in Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), Subchapter H, Division 1: Vent Gas Control, as required by 30 TAC Chapter 115, Subchapter H, effective December 23, 2004.
- E. The permit holder shall install a continuous flow monitor and composition analyzer that provide a record of the vent stream flow and composition (total VOC or Btu content) to the flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be ± 5.0 percent, temperature monitor shall be ± 2.0 percent at absolute temperature, and pressure monitor shall be ± 5.0 mm Hg.

Calibration of the analyzer shall follow the procedures and requirements of Section 10.0 of 40 CFR Part 60, Appendix B, Performance Specification 9, as amended through October 17, 2000 (65 FR 61744), except that the multi-point calibration procedure in Section 10.1 of Performance Specification 9 shall be performed at least once every calendar quarter instead of once every month, and the mid-level calibration check procedure in Section 10.2 of Performance Specification 9 shall be performed at least once every calendar week instead of once every 24 hours. The calibration gases used for calibration procedures shall be in accordance with Section 7.1 of Performance Specification 9. Net heating value of the gas combusted in the flare shall be calculated according to the equation given in 40 CFR § 60.18(f)(3) as amended through October 17, 2000, (65 FR 61744).

If a calorimeter is used, it shall be calibrated, installed, operated, and maintained, in accordance with manufacturer recommendations, to continuously measure and record the net heating value of the gas sent to the flare, in British thermal units/standard cubic foot of the gas.

The flow monitors and composition analyzers shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR § 60.18(f)(4) shall be recorded at least once every 15 minutes. Hourly mass emission rates shall be determined and recorded using the above readings and the emission factors used in the permit amendment application, PI-1 dated July 31, 2009.

- 27. The following requirements apply to the vent gas capture systems for the flare (EPN 1-105A). **(01/16)**

- A. Either conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21 once a year. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
- B. The control device shall not have a bypass.

Or

If there is a bypass for the control device, comply with either of the following requirements:

- (1) Install a flow indicator that records and verifies zero flow at least once every 15 minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
- (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals that prevent flow out the bypass.

These requirements do not apply to high point vent and low point drain valves. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when required to be in service per this permit.

- C. If any of the above inspections is not satisfactory, the permit holder shall promptly take necessary corrective action. Records shall be maintained documenting the performance and results of the inspections required above.

Regenerative Thermal Oxidizer (RTO) and Carbon Adsorption System (CAS)

28. Regenerative Thermal Oxidizer Monitoring Requirements are as follows:

- A. The RTO exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature shall be recorded to an averaging period of six minutes or less.
- B. The RTO average temperature shall be maintained greater than 1400°F when waste gas is directed to the oxidizer.
- C. The temperature measurement device shall be installed, calibrated, and maintained according to the manufacturer's specifications or equivalent. **(11/06)**

29. Emissions of NO_x from the RTO unit shall not exceed 0.035 lb/MMBtu during normal operation. This emission limit does not apply during startup, shutdown, decoking, or maintenance operations. **(12/01)**

30. When the RTO unit is not operating, sources typically controlled by the RTO shall instead be controlled by one of the carbon absorption system (CAS) with EPNs 2205-1, 2205-2, or 2300-1. Each CAS shall consist of at least two activated carbon canisters that are connected in series. **(04/13)**

Initial Determination of Compliance for RTO

31. The VOC, NO_x, and CO emissions from the RTO (EPN TO-STK) were sampled in July 2000. In addition, inlet sulfur has been tested and a visible emission observation has been conducted on the RTO stack. Results of this testing shall be maintained and made available to the TCEQ, local air pollution program, or EPA personnel upon request.

(12/01)

32. Carbon Adsorption System (CAS) Monitoring Requirements:

A. When on-stream, the CAS shall be sampled and recorded weekly during normal business hours, to determine breakthrough of VOC. Monitoring is not required during plant holidays and weekends. The sampling point shall be at the outlet of the initial canister but before the inlet to the second or final polishing canister. When possible, sampling shall be done during operating conditions reflecting maximum emission venting to the CAS. (Example: during loading, tank filling, and process venting.)

B. Breakthrough as defined in Special Condition No. 32C shall be determined using organic vapor analyzer (OVA) and/or gas chromatograph (GC) methods. An OVA approved by the TCEQ may be utilized as the initial hydrocarbon detection method. If a total VOC concentration of 100 ppmv or higher is detected by the OVA, obtain a grab sample of the CAS primary outlet gas stream for GC analysis. Breakthrough takes place when the GC analytical results show greater than 100 ppmv of butanes and heavier hydrocarbons. On each day the sampling is conducted as required by Special Condition No. 32A, the GC/OVA shall be calibrated prior to sampling with a certified gas mixture at 0 ppmv \pm 10 ppmv and at 100 ppmv \pm 10 percent.

C. Breakthrough shall be defined as a measured VOC (butane and heavier) concentration of 100 ppmv. When the condition of VOC (butane and heavier) breakthrough from the initial canister occurs, the waste gas flow shall be either blocked from venting to the atmosphere or switched to an unsaturated canister as soon as possible.

Within four hours of detection of breakthrough (as defined above), a fresh canister shall be placed as the new final polishing canister.

Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above-specified time frames.

D. Records of the CAS monitoring maintained at the plant site shall include (but are not limited to) the following:

- (1) Sample time and date.
- (2) Monitoring results (ppmv of butane and heavier).
- (3) Corrective action taken including the time and date of that action.
- (4) Process flow rates of the wastewater unit (WWU) on the date of sampling.

These records shall be made available to representatives of the TCEQ and local programs upon request and shall be retained for at least two years following the date that the data is obtained.

- E. The holder of this permit may request a change in frequency of breakthrough sampling after completing at least one year of sampling as specified above. The request shall include a copy of the CAS monitoring records specified in Paragraph D of this condition and shall be submitted to the Austin Office of Air, Air Permits Division for review and response. The permit holder may not change the sampling frequency until written approval is received from the TCEQ Executive Director. **(12/01)**

33. When the CAS is off-stream, each carbon canister must be isolated from vent gas streams to prevent premature saturation of the carbon bed. Carbon canister inlet valves must be closed at all times when the CAS is off-stream. **(07/00)**

Auxiliary Boiler (EPN 1-4026-UD)

34. The NO_x emissions from the Auxiliary Boiler (EPN 1-104BD) shall not exceed 0.08 lb NO_x/MMBtu when firing pipeline-quality natural gas, and 0.12 lb NO_x/MMBtu when firing plant fuel gas containing hydrogen (H₂). Compliance with these limits shall be based upon non-rolling daily averages. This emission limit does not apply during startup, shutdown, decoking, or maintenance operations. **(PSD, 12/01)**

Initial Determination of Compliance

35. The NO_x and CO emissions from the Auxiliary Boiler (EPN 1-104BD) was sampled in 1993 and 1994, respectively. The results of this testing shall be maintained and made available to the TCEQ, local air pollution program, or EPA personnel upon request. **(PSD, 10/00)**

Other stack sampling and testing results after 1994 are also required to be recorded, maintained, and made available the TCEQ, local air pollution program, or EPA personnel upon request. **(05/10)**

Continuous Determination of Compliance

36. The holder of this permit shall install, calibrate, and maintain a CEMS to measure and record the in-stack concentration of NO_x from the Aux Boiler (EPN 1-104BD). **(PSD)**
- A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the Office of Air, Air Permits Division for requirements to be met.

- B. The system shall be zeroed and spanned daily, and corrective action taken when the 24 hour span drift exceeds two times the amounts specified in 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days, unless the monitor is required by a subpart of NSPS or NESHAPS, in which case zero and span shall be done daily without exception.

Each monitor shall be quality-assured at least every calendar quarter using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2. with the following exceptions: 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 not occur in 2 consecutive months. For non NSPS sources, the cylinder gas audit (CGA) can be conducted in place of the annual RATA.

All CGA exceedances of ± 15 percent accuracy indicate that the CEMS is out of control.

- C. The monitoring data shall be reduced to hourly average concentrations, using a minimum of four equally-spaced data points from each one hour period. The average lb NO_x/MMBtu for each operating day shall be calculated and recorded. Compliance with the lb/MMBtu limit shall be determined based upon the daily average.
- D. All monitoring data and quality-assurance data shall be maintained by the source for a period of five years and shall be made available to the TCEQ Executive Director or his designated representative upon request. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.
- E. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.
- F. Quality-assured data must be generated when the emission source is 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 time that the emission source operated over the previous rolling 12-month period. 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 Director. **(03/08)**

Cooling Towers

37. The Cooling Towers (EPNs F-1-101-U and F-2401-UL) shall be designed and operated in accordance with the following requirements: **(01/16)**

- A. The VOC associated with cooling tower water shall be monitored monthly with an air stripping system meeting the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or an approved equivalent sampling method. Cooling water VOC concentrations above 0.08 ppmw indicate faulty equipment. Equipment shall be maintained so as to minimize VOC emissions into the cooling water. Faulty equipment shall be repaired at the earliest opportunity but no later than the next scheduled shutdown of the process unit in which the leak occurs.

Emissions from the cooling tower are not authorized if the VOC concentration of the water returning to the cooling tower exceeds 0.80 ppmw. The VOC concentrations above 0.80 ppmw are not subject to extensions for delay of repair under this permit condition. The results of the monitoring and maintenance efforts shall be recorded.

- B. The cooling tower water shall be continuously monitored for the Highly Reactive Volatile Organic Compound (HRVOC) per requirements of 30 TAC Chapter 115, Subchapter H.

The results of the HRVOC concentration monitoring, cooling water flow rate, and maintenance activities on the cooling water system shall be recorded. The monitoring results and cooling water hourly mass flow rate shall be used to determine cooling tower hourly HRVOC emissions.

- C. Cooling water shall be sampled once a week for total dissolved solids (TDS) and once a day for conductivity. Dissolved solids in the cooling water drift are considered to be emitted as particulate matter. The data shall result from collection of water samples from the cooling tower feed water and represent the water being cooled in the tower. Water samples should be capped upon collection, and transferred to a laboratory area for analysis. The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, and SM 2540 C (SM - 19th edition of Standard Methods for Examination of Water). The analysis method for Conductivity shall be ASTM D1125-95A and SM2510 B. Use of an alternative method shall be approved by the TCEQ Regional Director prior to its implementation.

Storage and Loading of VOC

38. Storage tanks are subject to the following requirements. The control requirements specified in paragraphs A-F of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 psia at the maximum feed temperature or 95°F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons.
- A. An internal floating deck or “roof” or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof: (1) a liquid mounted seal; (2) two continuous seals mounted one above the other; or (3) a mechanical shoe seal.
- B. An open-top tank containing a floating roof (external floating roof tank) which uses double seal or secondary seal technology shall be an approved control alternative to

an internal floating roof tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.

- C. For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and seal gap measurements as specified in 40 CFR § 60.113b, Testing and Procedures (as amended at 54 FR 32973, Aug. 11, 1989), to verify fitting and seal integrity. Records shall be maintained of the dates seals were inspected and seal gap measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted.
- D. The floating roof design for new tanks shall incorporate sufficient flotation to conform to the requirements of API Code 650 dated November 1, 1998, except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.
- E. Uninsulated tank exterior surfaces exposed to the sun shall be white or aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
- F. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar month and the past consecutive 12-month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

Emissions for tanks shall be calculated using: the publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks," dated February 2001 or later. **(11/06)**

Additional Recordkeeping Requirements

- 39. The following records shall be kept at the plant in a form suitable for inspection for the life of the permit. All records required in this permit shall be made immediately available upon request to representatives of the TCEQ, EPA, or any air pollution control agency with jurisdiction: **(05/10)**
 - A. Permit application dated July 31, 2009, and subsequent representations submitted to the TCEQ.
 - B. A complete copy of the testing reports and records of the initial performance testing for The Waste Heat Boiler SCR1 and the Charge Gas Heater SCR2 (EPNs 4026-U and 4000 B) completed pursuant to Special Condition Nos. 22 through 24 to demonstrate initial compliance.

- C. 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 the 2009 permit amendment.
40. In addition to recordkeeping requirements contained in the conditions of this permit, the following information shall be recorded and shall be kept at the plant site in a form suitable for inspection for a five-year rolling basis and shall be made immediately available upon request to representatives of the TCEQ, EPA or any air pollution control agency with jurisdiction: **(07/16)**
- A. The NO_x, CO, NH₃, and O₂ CEMS emissions data to demonstrate compliance with the emission rates listed in the MAERT including the calculated flow rate from Special Condition No.15.
 - B. Raw data files of all CEMS data including calibration checks and adjustments and maintenance performed on these systems.
 - C. Records of the hours of operation and average daily records of natural gas and/or fuel gas usage in all combustion units.
 - D. Records of fuel sampling conducted pursuant to 40 CFR Part 60, Subpart KKKK.
 - E. Heat input to all combustion units to comply with Special Condition No. 11.
 - F. Written records of any accidental releases, spills, or venting of NH₃, and the corrective action taken pursuant to Special Condition No. 20.
 - G. Written records of maintenance performed to any piping and valves in NH₃ service pursuant to Special Condition No. 21.
 - H. Daily records of hours of operation and daily records of all fuel gas rates to the amine absorber.
 - I. Records of the hours of usage of the CAS must be maintained pursuant to Special Condition No. 32.
 - J. The results of cooling tower monitoring and maintenance efforts pursuant to Special Condition No. 37.
 - K. Non-rolling hourly temperature within the reaction/combustion zone of the RTO shall be maintained and kept on-site pursuant to Special Condition No. 28.
 - L. The mass rate (as pounds per hour) of H₂S sent to the flare shall be recorded at least once per day, and the annual mass rate of H₂S sent to the flare shall be totaled and recorded at the end of each year. These records will be used to determine compliance with the sulfur dioxide emission limitations specified in the MAERT.

Reporting

41. The holder of this permit shall comply with the reporting and recordkeeping requirements of 40 CFR § 60.7. Such reports are required for each emission unit which is required to be continuously monitored. Each report shall contain the hours of operation of the facility, a

report summary of the periods of non-complying emissions, and CEMS downtimes by cause, in addition to the information specified in 40 CFR § 60.7.

Planned MSS Activities

42. Planned startup and shutdown emissions due to the activities identified in Special Condition 43 are authorized from facilities and emission points identified in Attachment D, provided the facilities and emissions are compliant with the MAERT and special conditions, or Special Condition No. 53 of this permit. **(05/10)**
43. This permit authorizes the emissions from the facilities identified in Attachment D for the planned MSS activities summarized in the MSS Activity Summary (Attachment C) attached to this permit. **(05/10)**

Attachment A identifies the inherently low emitting MSS activities that may be performed at the site. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

The performance of each planned MSS activity not identified in Attachments A or B and the emissions associated with it shall be recorded and include at least the following information:

- A. the physical location at which emissions from the MSS activity occurred, including the emission point number and common name for the point at which the emissions were released into the atmosphere;
- B. the type of planned MSS activity and the reason for the planned activity;
- C. the common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. the date and time of the MSS activity and its duration; and
- E. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

44. Process units and facilities, with the exception of those identified in Special Condition Nos. 47, 48, and 50 and Attachment A shall be depressurized, emptied, degassed, and placed in service in accordance with the following requirements. **(05/10)**
- A. The process equipment shall be depressurized to a control device or a controlled recovery system prior to venting to atmosphere, degassing, or draining liquid. Equipment that only contains material that is liquid with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to atmosphere and drained in accordance with paragraph C of this special condition. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded.
 - B. If mixed phase materials must be removed from process equipment, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. If the VOC partial pressure is greater than 0.50 psi at either the normal process temperature or 95°F, any vents in the system must be routed to a control device or a controlled recovery system. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. Control must remain in place until degassing has been completed or the system is no longer vented to atmosphere.
 - C. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment to commence degassing and/or maintenance. Liquids must be drained into a closed vessel unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.
 - D. If the VOC partial pressure is greater than 0.50 psi at the normal process temperature or 95°F, facilities shall be degassed using good engineering practice to ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. The control device or recovery system utilized shall be recorded with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.
 - (1) For MSS activities identified in Attachment B, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere, except as necessary to verify an acceptable VOC concentration and establish isolation of the work area, until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.
 - (2) The locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the exhaust gases shall be recorded. If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or

controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition No. 45. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv.

- E. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:
- (1) It is not technically practicable to depressurize or degas, as applicable, into the process.
 - (2) There is not an available connection to a plant control system (flare).
 - (3) There is no more than 50 lbs of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

Except when identified for an activity on Attachment A, all instances of venting directly to atmosphere per Special Condition No. 44E must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the work order or equivalent for those planned MSS activities identified in Attachment B.

45. Air contaminant concentration shall be measured using an instrument/detector meeting one set of requirements specified below. **(05/10)**
- A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:
- (1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate response factor shall be recorded.
 - (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. The highest measured VOC concentration shall not exceed the specified VOC concentration limit prior to uncontrolled venting.
- B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

- (1) The air contaminant concentration measured is less than 80 percent of the range of the tube. If the maximum range of the tube is greater than the release concentration defined in (3), the concentration measured is at least 20 percent of the maximum range of the tube.
- (2) The tube is used in accordance with the manufacturer's guidelines.
- (3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) < release concentration.

Where the release concentration is:

10,000* mole fraction of the total air contaminants present that can be detected by the tube.

The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector. **(01/16)**

- (1) The detector shall be calibrated monthly with a certified pentane gas standard at 25 percent of the lower explosive limit (LEL) for pentane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.
- (2) A daily functionality test shall be performed on each detector using the same certified gas standard used for calibration. The LEL monitor shall read no lower than 90 percent of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.
- (3) A certified methane gas standard equivalent to 25 percent of the LEL for pentane may be used for calibration and functionality tests provided that the LEL response is within 95 percent of that for pentane.

46. Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the removal of a component for repair or replacement results in an open-ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period: **(05/10)**

- A. A cap, blind flange, plug, or second valve must be installed on the line or valve; or
- B. The open-ended valve or line shall be monitored once for leaks above the background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once at the end of the 72 hour period following the creation of the open-ended line and monthly thereafter with an approved gas analyzer and the

results recorded. For turnarounds and all other situations, leaks are indicated by reading 20 ppmv above background and must be repaired within 24 hours or a cap, blind flange, plug, or send valve must be installed on the line or valve.

47. This permit authorizes emissions from EPN PLANT MSS for the storage tanks identified in the attached facility list during planned floating roof landings. Tank roofs may only be landed for changes of tank service or tank inspection/maintenance as identified in the permit application. Emissions from change of service tank landings shall not exceed 10 tons of VOC in any rolling 12 month period. Tank roof landings include all operations when the tank floating roof is on its supporting legs. These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The following requirements apply to tank roof landings. **(05/10)**
- A. The tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank has been drained to the maximum extent practicable without entering the tank. Liquid level may be maintained steady for a period of up to two hours if necessary to allow for valve lineups and pump changes necessary to drain the tank. This requirement does not apply where the vapor under a floating roof is routed to control or a controlled recovery system during this process.
 - B. If the VOC partial pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, tank refilling or degassing of the vapor space under the landed floating roof must begin within 24 hours after the tank has been drained unless the vapor under the floating roof is routed to control or a controlled recovery system during this period. Floating roof tanks with liquid capacities less than 100,000 gallons may be degassed without control if the VOC partial pressure of the standing liquid in the tank has been reduced to less than 0.02 psia prior to ventilating the tank. Controlled degassing of the vapor space under landed roofs shall be completed as follows:
 - (1) Any gas or vapor removed from the vapor space under the floating roof must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when degassing to the control device or controlled recovery system.
 - (2) The vapor space under the floating roof shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.
 - (3) A volume of purge gas equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration. The measurement of purge gas volume shall

not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition No. 45.

- (4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.
 - (5) If ventilation is to be maintained with emission control, the VOC concentration shall be recorded once an hour.
 - (6) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC partial pressure of the remaining liquid in the tank is less than 0.02 psia.
- C. The tank shall not be opened except as necessary to set up for degassing and cleaning, or ventilated without control, until either all standing liquid has been removed from the tank or the liquid in the tank has a VOC partial pressure less than 0.02 psia. These criteria may be demonstrated in any one of the following ways.
- (1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.
 - (2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:
 - (a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A, Appendix 1.
 - (b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).
 - (c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition No. 45.
 - (3) No standing liquid verified through visual inspection.
The permit holder shall maintain records to document the method used to release the tank.
- D. Tanks shall be refilled as rapidly as practicable until the roof is off its legs with the following exceptions:

- (1) Only one tank with a landed floating roof can be filled at any time at a rate not to exceed 500 barrels per hour (bbl/hr) or 21,000 gallons per hour (gal/hr).
 - (2) The vapor space below the tank roof is directed to a control device when the tank is refilled until the roof is floating on the liquid. The control device used and the method and locations used to connect the control device shall be recorded. All vents from the tank being filled must exit through the control device.
 - E. The occurrence of each roof landing and the associated emissions shall be recorded and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information:
 - (1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;
 - (2) the reason for the tank roof landing;
 - (3) for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:
 - (a) the roof was initially landed,
 - (b) all liquid was pumped from the tank to the extent practical,
 - (c) start and completion of controlled degassing, and total volumetric flow,
 - (d) all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,
 - (e) if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,
 - (f) refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and
 - (g) tank roof off supporting legs, floating on liquid; and
 - (4) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events c and h with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids" dated November 2006 and the permit application.
48. Fixed roof tanks shall not be ventilated without control, until either all standing liquid has been removed from the tank or the liquid in the tank has a VOC partial pressure less than 0.02 psia. This shall be verified and documented through one of the criteria identified in Special Condition No. 47C. Fixed roof tanks manways may be opened without emission controls when there is standing liquid with a VOC partial pressure greater than 0.02 psi vapor as necessary to set up for degassing and cleaning. One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. The emission

control system shall meet the requirements of Special Condition 47B.1 through 47B.5 and records maintained per No. 47E.3.c through 47E.3.e, and 47E.4. Low vapor pressure liquid may be added to and removed from the tank as necessary to lower the vapor pressure of the liquid mixture remaining in the tank to less than 0.02 psia. **(05/10)**

49. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site: **(05/10)**
- A. Vacuum pumps and blowers shall not be operated on trucks containing or vacuuming liquids with VOC partial pressure greater than 0.50 psi at 95°F unless the vacuum/blower exhaust is routed to a control device or a controlled recovery system.
 - B. Equip fill line intake with a “duckbill” or equivalent attachment if the hose end cannot be submerged in the liquid being collected.
 - C. A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.
 - (1) Prior to initial use, identify any liquid in the truck. Record the liquid level and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system. After each liquid transfer, identify the liquid transferred and document that the VOC partial pressure is less than 0.50 psi if the vacuum exhaust is not routed to a control device or a controlled recovery system.
 - (2) For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a “duckbill” or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.
 - (3) If the vacuum truck exhaust is controlled with a control device other than an engine or oxidizer, VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer, measured using an instrument meeting the requirements of Special Condition No. 45.
 - (4) The volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.
 - D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined on a monthly basis.
 - E. If the VOC partial pressure of all the liquids vacuumed into the truck is less than 0.10 psi, this shall be recorded when the truck is unloaded or leaves the plant site and the emissions may be estimated as the maximum potential to emit for a truck in

that service as documented in the permit application. The recordkeeping requirements in Special Condition No. 49A through 49D do not apply.

50. The following requirements apply to frac, or temporary, tanks and vessels used in support of MSS activities. **(05/10)**
- A. The exterior surfaces of these tanks/vessels that are exposed to the sun shall be white or aluminum effective May 1, 2013. This requirement does not apply to tanks/vessels that only vent to atmosphere when being filled.
 - B. These tanks/vessels must be covered and equipped with fill pipes that discharge within six inches of the tank/vessel bottom.
 - C. These requirements do not apply to vessels storing less than 100 gallons of liquid that are closed such that the vessel does not vent to atmosphere.
 - D. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all frac tanks during the previous calendar month and the past consecutive 12 month period. The record shall include tank identification number, dates put into and removed from service, control method used, tank capacity and volume of liquid stored in gallons, name of the material stored, VOC molecular weight, and VOC partial pressure at the estimated monthly average material temperature in psia. Filling emissions for tanks shall be calculated using the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Loading Operations" and standing emissions determined using: the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."
 - E. If the tank/vessel is used to store liquid with VOC partial pressure less than 0.10 psi at 95°F, records may be limited to the days the tank is in service and the liquid stored. Emissions may be estimated based upon the potential to emit as identified in the permit application.
51. Turnaround emissions (EPNs 1-105A, PLANT MSS, 2300-1, 2205-1, and 2205-2) are those associated with the shutdown, degassing and purging, or restart of an entire process unit. A planned process unit startup may not occur more than once in any rolling 12 month period after all authorized facilities had been commissioned , except as noted below:

Gas Turbines and Steam Eductor

The TCEQ Regional Office shall be notified in writing at least two weeks or as soon as practical before a planned process unit shutdown or startup. The notification shall include:

- A. The name of the owner or operator, and the Regulated Entity Number of the site, and the permit authorizing the emissions.
- B. the physical location of the points at which emissions from the planned maintenance, startup, or shutdown activity will occur;

- C. the planned maintenance, startup, or shutdown activity and the reason for the activity;
 - D. the expected date and time of the planned maintenance, startup, or shutdown activity;
 - E. the common name of the process units or areas, the common name and the agency established facility identification number of the facilities that will be involved in the emissions activity, and the common name and the agency-established emission point numbers where the emissions may be released to the atmosphere.
 - F. the expected duration of the emissions from the planned maintenance, startup, or shutdown activity;
52. The MSS activities represented in the permit application may be authorized under permit by rule only if the procedures, emission controls, monitoring, and recordkeeping are the same as those required by this permit. **(05/10)**
53. All permanent facilities must comply with all operating requirements, limits, and representations in the permit(s) identified in Attachment D during planned startup and shutdown unless alternate requirements and limits are identified in this permit. Alternate requirements for emissions from routine emission points are identified below. **(05/10)**
- A. Combustion units, with the exception of flares, at this site are exempt from NO_x, CO, and NH₃ operating requirements identified in the other special conditions in this permit during planned startup and shutdown if the following criteria are satisfied.
 - (1) The maximum allowable emission rates in the permit authorizing the facility are not exceeded.
 - (2) The startup period does not exceed 8 hours in duration and the firing rate does not exceed 75 percent of the design firing rate. The time it takes to complete the shutdown does not exceed 4 hours.
 - (3) Control devices are started and operating properly when venting a waste gas stream.
 - B. A record shall be maintained indicating that the start and end times each of the activities identified above occur and documentation that the requirements for each have been satisfied.
54. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device. **(05/10)**

Controlled recovery systems identified in this permit shall be directed to an operating process or to a collection system that is vented through a control device meeting the requirements of this permit condition.

A. Carbon Adsorption System (CAS):

- (1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.
- (2) The CAS shall be sampled downstream on the first can and the concentration recorded at least once daily of CAS run time to determine breakthrough of the VOC. **(01/16)**
- (3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition No. 45.
- (4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame.
- (5) Records of CAS monitoring shall include the following:
 - (a) Sample time and date.
 - (b) Monitoring results (ppmv).
 - (c) Canister replacement log.
- (6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30 percent of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.

B. Thermal Oxidizer:

- (1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.
- (2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or $\pm 2.5^{\circ}\text{C}$.

C. Internal Combustion Engine:

- (1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.
- (2) The engine must have been stack tested with butane to confirm the required destruction efficiency within the past 12 months. VOC shall be measured in accordance with the applicable United States Environmental Protection Agency (EPA) Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance which may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition No. 45 are also acceptable for this documentation.
- (3) The engine shall be operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller. Documentation for each AFR controller that the, manufacturer's, or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least every calendar quarter in the absence of a specific written recommendation.

D. The Plant Flare System:

The plant flare shall be designed and operated in accordance with the specifications and requirements in Special Condition No. 26.

55. The vent gas capture system for the plant flare shall be inspected in accordance with the requirements in Special Condition No. 27. **(05/10)**
56. If spray guns are used to apply paint, they shall be airless, high volume low pressure (HVLP), or have the same or higher transfer efficiency as airless or HVLP spray guns. **(05/10)**
57. Emissions from all painting activities, except for minor painting identified in Attachment A to this permit, at this site must satisfy the criteria below. New compounds may also be added through the use of the procedure below. **(05/10)**
 - A. Short-term (pounds per hour [lb/hr]) and annual (TPY) emissions shall be determined for each chemical in the paint as documented in the permit application. The calculated emission rate shall not exceed the maximum allowable emissions rate at any emission point.

- B. The Effect Screening Level (ESL) for the material shall be obtained from the current TCEQ ESL list or by written request to the TCEQ Toxicology Division.
 - C. The total painting emissions of any compound must satisfy one of the following conditions:
 - (1) The total emission rate is less than 0.1 lb/hr and the ESL greater than or equal to 2 µg/m³; or
 - (2) The emission rate of the compound in pounds per hour is less than the ESL for the compound divided by 1000 (ER<ESL/1000).
 - D. The permit holder shall maintain records of the information below and the demonstrations in steps A through C above. The following documentation is required for each compound:
 - (1) Chemical name(s), composition, and chemical abstract registry number if available.
 - (2) Material Safety Data Sheet.
 - (3) Maximum concentration of the chemical in weight percent
 - (4) Paint usage and the associated emissions shall be recorded each month and the rolling 12 month total emissions updated.
58. No visible emissions shall leave the property due to painting or abrasive blasting. **(05/10)**
59. Black Beauty and Garnet Sand may be used for abrasive blasting. The permit holder may also use blast media that meet the criteria below: **(05/10)**
- A. The media shall not contain asbestos or greater than 1.0 weight percent crystalline silica.
 - B. The weight fraction of any metal in the blast media with a short term effects screening level (ESL) less than 50 micrograms per cubic meter as identified in the most recently published TCEQ ESL list shall not exceed the ESL_{metal}/1000.
 - C. The MSDS for each media used shall be maintained on site.
 - D. Blasting media usage and the associated emissions shall be recorded each month and the rolling 12 month total emissions updated.

Emission Credits

60. This Nonattainment New Source Review (NNSR) permit is issued based on the use of 0.1 tons per year (tpy) of NO_x emission credits (ECs) from ERC Certificate No.2867 to offset the 109 Splitter Project's 0.03 tpy NO_x emission increase from the Main Flare (EPN 1-105A) at a ratio of 1.3:1, through participation in and as approved by the TCEQ Emission Banking and Trading (EBT) Program. **(NA, 01/16)**

In addition to using ECs for NO_x, the permit holder may utilize allowances within the Mass Emission Cap and Trade (MECT) program in the Houston-Galveston-Brazoria (HGB) nonattainment area to satisfy the NO_x offset requirement for the 109 Splitter Project facilities required to participate in the MECT program. The permit holder shall obtain approval from the TCEQ EBT Program for the MECT allowances being used. The permit holder shall also comply with the following:

- A. To satisfy the 1:1 portion of the 1.3:1 offset requirement for the 109 Splitter Project's increase of NO_x emissions from the facilities subject to the MECT program, starting with the MECT compliance period in which these facilities commence operation, the permit holder shall obtain at the beginning of, hold during, and surrender at the end of each MECT compliance period 12.3 tons of MECT allowances, regardless of whether the actual NO_x emissions from the following facilities are less than this amount:

FIN	EPN	TPY
4002-B and 1-104BD	4026-U and 1-104BD	12.3

- B. To satisfy the 0.3 portion of the 1.3:1 offset requirement for the 109 Splitter Project's increase of NO_x emissions from the facilities subject to the MECT program, the permit holder shall permanently retire 3.7 tpy of MECT allowances:

FIN	EPN	TPY
4002-B and 1-104BD	4026-U and 1-104BD	3.7

- C. The permit holder shall notify the TCEQ EBT Program of the use of MECT allowances for the 1:1 portion of the NO_x offset requirement for each MECT compliance period. The TCEQ EBT Program shall verify the use of these allowances.
- D. If MECT allowances devalue due to future regulatory changes, the permit holder shall acquire additional MECT allowances to hold during, and surrender at the end of, each MECT compliance period that are equivalent to the allowance devaluation (to make up for the devaluation change) to satisfy the 1:1 portion of the 1.3:1 offset requirement. However, allowances used to satisfy the 0.3:1 portion of the offset requirement do not devalue. The TCEQ EBT Program shall verify the use of these allowances.

61. This Nonattainment New Source Review (NNSR) permit is issued based on the requirement that the permit holder shall obtain and provide 17.6 tons per year (tpy) of NO_x emission credits (ECs) to offset the Production and Efficiency Increase Project's 13.47

tpy NOx emission increase from the facilities referenced below at a ratio of 1.3:1, through participation in and as approved by the TCEQ Emission Banking and Trading (EBT) Program. The permit holder shall specifically identify the amount of ECs, by TCEQ Emission Reduction Credit Certificate (ERCC) Number. The permit holder shall also obtain approval from the TCEQ EBT Program for the ECs being used and then submit a permit alteration or amendment request to the TCEQ Air Permits Division and a copy to the TCEQ Regional Office, to identify approved credits by TCEQ ERCC number. **(07/16)**

<u>FIN</u>	<u>EPN</u>
4061-JT through 4065-JT	4026-U
4065-JTMSS	4065-JTMSS
4065-JT	4065-JT

In addition to using ECs for NOx, the permit holder may utilize allowances within the Mass Emission Cap and Trade (MECT) program in the Houston-Galveston-Brazoria (HGB) nonattainment area to satisfy the NOx offset requirement for the Production and Efficiency Increase Project facilities required to participate in the MECT program. The permit holder shall obtain approval from the TCEQ EBT Program for the MECT allowances being used. The permit holder shall also comply with the following:

- A. To satisfy the 1:1 portion of the 1.3:1 offset requirement for the Production and Efficiency Increase Project's increase of NOx emissions from the facilities subject to the MECT program, starting with the MECT compliance period in which these facilities commence operation, the permit holder shall obtain at the beginning of, hold during, and surrender at the end of each MECT compliance period 8.3 tons of MECT allowances, regardless of whether the actual NOx emissions from the following facilities are less than this amount:

<u>FIN</u>	<u>EPN</u>	<u>TPY</u>
4001-B	4026-U	3.3
4002-B	4026-U	3.9
2108-B	1-104BD	1.1

- B. To satisfy the 0.3 portion of the 1.3:1 offset requirement for the Production and Efficiency Increase Project's increase of NOx emissions from the facilities subject to the MECT program, the permit holder shall permanently retire 2.5 tpy of MECT allowances:

<u>FIN</u>	<u>EPN</u>	<u>TPY</u>
4001-B	4026-U	1.0
4002-B	4026-U	1.2
2108-B	1-104BD	0.3

- C. The permit holder shall notify the TCEQ EBT Program of the use of MECT allowances for the 1:1 portion of the NOx offset requirement for each MECT compliance period. The TCEQ EBT Program shall verify the use of these allowances.
 - D. If MECT allowances devalue due to future regulatory changes, the permit holder shall acquire additional MECT allowances to hold during, and surrender at the end of, each MECT compliance period that are equivalent to the allowance devaluation (to make up for the devaluation change) to satisfy the 1:1 portion of the 1.3:1 offset requirement. However, allowances used to satisfy the 0.3:1 portion of the offset requirement do not devalue. The TCEQ EBT Program shall verify the use of these allowances.
62. This NNSR permit is issued based on the requirement that the permit holder shall obtain and provide 15.1 tpy of VOC ECs to offset the Production and Efficiency Increase Project's 11.56 tpy VOC emission increase from the facilities referenced below at a ratio of 1.3:1, through participation in and as approved by the TCEQ EBT Program. The permit holder shall specifically identify the amount of ECs, by TCEQ ERCC Number. The permit holder shall also obtain approval from the TCEQ EBT Program for the ECs being used and then submit a permit alteration or amendment request to the TCEQ Air Permits Division and a copy to the TCEQ Regional Office, to identify approved credits by TCEQ ERCC number.

<u>FIN</u>	<u>EPN</u>
4061-JT-4065-JT	4026-U
4065-JTMSS	4065-JTMSS
4065-JT	4065-JT
M-222	M-222
M-223	M-223
M-1002	M-1002
PLANT	PLANT
MSS STORAGE	MSS STORAGE
2108-B	1-104BD

In addition to using ECs for VOC, the permit holder may utilize allowances within the HRVOC Emission Cap and Trade (HECT) program in the HGB nonattainment area to satisfy the VOC offset requirement for the Production and Efficiency Increase Project facilities required to participate in the HECT program. The permit holder shall obtain approval from the TCEQ EBT Program for the HECT allowances being used. The permit holder shall also comply with the following:

- A. To satisfy the 1:1 portion of the 1.3:1 offset requirement for the Production and Efficiency Increase Project's increase of VOC emissions from the facilities subject to the HECT program, starting with the HECT compliance period in which these facilities commence operation, the permit holder shall obtain at the beginning of, hold during, and surrender at the end of each HECT compliance period 13.8 tons of HECT allowances, regardless of whether the actual VOC emissions from the following facilities are less than this amount:

<u>FIN</u>	<u>EPN</u>	<u>TPY</u>
4001-B	4026-U	3.1
4002-B	4026-U	3.7
4000-B	4000-B	1.8
101-U, 2101-U	F-1-101-U	0.9
4030-EJ	4030-EJ	4.3

- B. To satisfy the 0.3 portion of the 1.3:1 offset requirement for the Production and Efficiency Increase Project's increase of VOC emissions from the facilities subject to the HECT program, the permit holder shall permanently retire 4.2 tpy of HECT allowances:

<u>FIN</u>	<u>EPN</u>	<u>TPY</u>
4001-B	4026-U	0.9
4002-B	4026-U	1.1
4000-B	4000-B	0.6
101-U, 2101-U	F-1-101-U	0.3
4030-EJ	4030-EJ	1.3

- C. The permit holder shall notify the TCEQ EBT Program of the use of HECT allowances for the 1:1 portion of the VOC offset requirement for each HECT compliance period. The TCEQ EBT Program shall verify the use of these allowances.
- D. If HECT allowances devalue due to future regulatory changes, the permit holder shall acquire additional HECT allowances to hold during, and surrender at the end of, each HECT compliance period that are equivalent to the allowance devaluation (to make up for the devaluation change) to satisfy the 1:1 portion of the 1.3:1 offset requirement. However, allowances used to satisfy the 0.3:1 portion of the offset requirement do not devalue. The TCEQ EBT Program shall verify the use of these allowances.

Turbine Change-out

63. The permittee may perform turbine change-outs for maintenance and repair according to the following:
- A. The permittee shall notify the TCEQ in writing no later than 30 working days after any turbine is switched.
 - B. The permittee shall record the following information each time any turbine is switched:
 - (1) Date switch occurred;

- (2) Description of the maintenance/repair/parts replacement performed on the switched turbine since it was last in service;
 - (3) Identify switched turbine and spare turbine by make, model, and serial number; and
 - (4) A demonstration showing that the switch did not result in an increase in emission of any pollutant or the emission of a new pollutant previously emitted. Documentation that the turbine servicer has not upgraded the horsepower of the turbines shall be considered a sufficient demonstration.
- C. All information shall be kept on-site for at least five years from the date of each turbine swap.

Date: July 12, 2016

Attachment A

Permit Numbers 18999, PSDTX755M1, and N216

Inherently Low-Emitting Activities

Activity	Emissions				
	VOC	NO _x	CO	PM	H ₂ S/SO ₂
Meter proving	X				
Adhesives application	X				
Sample collection	X				
Cold solvent degreaser	X				
Insulation/refractory handling	X				
Use and Disposal of Aerosol Products	X				
Calibration/Inspection/Repair/Replacement of Analytical Equipment and CEMS	X				
Inspection/Cleaning/Repair/Replacement of Screens/Filters	X				
Opening/Cleaning/Inspection/Repair/ Replacement of Gauges and Sight Glasses	X	X	X	X	X
Calibration/Inspection/Repair/Replacement of Process Instruments	X				
Inspection/Cleaning/Fluid Addition/Repair/Replacement of Lube Oil Systems	X				
Activated carbon canister inspection, repair, and replacement	X	X	X	X	
Tank Seal Inspections and other Tank Inspection Activities	X				
Water Washing Empty Drums, Totes, and misc. small equipment	X				
Inspection/Cleaning/Repair/Replacement of equipment in heavy-liquid service	X				
Management of hazardous and non-hazardous waste in closed container					
Combinations of the above	X	X	X	X	X

Date: May 3, 2010

Attachment B

Permit Numbers 18999, PSDTX755M1, and N216

Routine Maintenance Activities

Pump repair/replacement

Fugitive component (valve, pipe, flange) repair/replacement

Compressor repair/replacement

Heat exchanger repair/replacement

Vessel repair/replacement

Equipment repair/replacement when isolated VOC purge volume is less than 50 cubic feet.

Date: May 3, 2010

Attachment C

Permit Numbers 18999, PSDTX755M1, and N216

MSS Activities Summary

Facilities	Description	Emissions Activity	EPN
all process units	process unit shutdown/depressurize/drain	vent to flare	1-105A
all process units	process unit purge/degas/drain	vent to atmosphere	PLANT MSS
all process units	process unit startup	vent to flare	1-105A
all process units and tanks	preparation for facility/component repair/replacement	vent to flare	1-105A
all process units and tanks	preparation for facility/component repair/replacement	vent to atmosphere	PLANT MSS
all process units and tanks	recovery from facility/component repair/replacement	vent to flare	1-105A
all process units and tanks	recovery from facility/component repair/replacement	vent to atmosphere	PLANT MSS
all process units and tanks	preparation for unit turnaround or facility/component repair/replacement	remove liquid	1-105A PLANT MSS; 2300-1; 2205-1; 2205-2
all production-related	all production related site facilities	Painting	PLANT MSS
all floating roof tanks	tank roof landing	operation with landed roof	PLANT MSS
all floating roof tanks	degas of tank with landed roof	controlled degassing	1-105A
all tanks	tank cleaning	cleaning activity and solvents	PLANT MSS
see Attachment A	miscellaneous low emitting activities	see Attachment A	PLANT MSS
all production-related activities	abrasive blasting	PM from blasting media	PLANT MSS

Date: January 11, 2016

Attachment D

Permit Numbers 18999, PSDTX755M1, and N216

Facility List

This permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: frac tanks, containers, vacuum trucks, facilities used for painting or abrasive blasting, portable control devices identified in the permit special conditions and the controlled recovery systems. Emissions from temporary facilities are authorized provided the temporary facility (a) does not remain on the plant site for more than 12 consecutive months, (b) is used solely to support planned MSS activities at the permanent site facilities listed in this Attachment, and (c) does not operate as a replacement for an existing authorized facility.

This permit authorizes MSS emissions from the permanent site facilities identified below. The headings for each group of facilities (Process Units, Tanks, etc) are used in the MSS Activity Summary to identify all facilities in the respective group.

Process Units Description	FIN	Permit
Gas Turbine	4061-JTMSS	18999
Gas Turbine	4062-JTMSS	18999
Gas Turbine	4063-JTMSS	18999
Gas Turbine	4064-JTMSS	18999
Gas Turbine	4065-JTMSS	18999
Steam Eductor	4030-EJ	18999
Wastewater Stripper	2200-E	18999
Catalyst Handling	4051/58-D	18999
Catalyst Transfer	CAT-TRANSFER1	18999
Catalyst Clearing	CAT-CLEAR1	18999
Meter Calibrations	MAINT-METER	18999
Blow Down Vents	BLOW-VENT	18999
Charge Gas Heater	4000-B	18999
Propylene Unit	PLANT MSS	18999
Process Systems MSS	MSS Process	18999
109 Splitter Process Systems MSS	PLANT-109	18999
Transfer System MSS	MSS Transfer	18999
Blasting	MSS Blast	18999
Painting	MSS Paint	18999
Waste Heat Boiler/SCR1 MSS	4026-U	18999

Tanks Description	FIN	Permit
Pygas Tank	MSS M-1002	18999
Slop Oil Tank	M-222	18999
Slop Oil Tank	MSS M-223	18999
Flare Knock-Out	F-1-L4	18999
Storage System MSS	MSS Storage	18999
Process Water Tank	MSS M-224	18999

Flares Description	FIN	Permit
Plant Flare	1-105A MSS	18999
Main Flare MSS Activities - 109 Splitter Project	PLANT-109	18999

Combustion Units Description	FIN	Permit
Thermal Oxidizer	107-B	18999

Date: January 11, 2016

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 18999, PSDTX755M1, and N216

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)
4061-JT	Gas Turbine 4061 MSS	NO _x	70.00	2.16
		CO	30.00	0.72
		SO ₂	0.68	0.02
		PM (13)	1.32	0.05
		PM ₁₀	1.32	0.05
		PM _{2.5}	0.94	0.03
		VOC	0.42	0.06
4062-JT	Gas Turbine 4062 MSS	NO _x	70.00	2.16
		CO	30.00	0.72
		SO ₂	0.68	0.02
		PM (13)	1.32	0.05
		PM ₁₀	1.32	0.05
		PM _{2.5}	0.94	0.03
		VOC	0.42	0.06
4063-JT	Gas Turbine 4063 MSS	NO _x	70.00	2.16
		CO	30.00	0.72
		SO ₂	0.68	0.02
		PM (13)	1.32	0.05
		PM ₁₀	1.32	0.05
		PM _{2.5}	0.94	0.03
		VOC	0.42	0.06

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
4064-JT	Gas Turbine 4064 MSS	NO _x	70.00	2.16
		CO	30.00	0.72
		SO ₂	0.68	0.02
		PM (13)	1.32	0.05
		PM ₁₀	1.32	0.05
		PM _{2.5}	0.94	0.03
		VOC	0.42	0.06
4065-JT	Gas Turbine 4065 MSS	NO _x	87.50	2.70
		CO	37.50	0.90
		SO ₂	0.85	0.03
		PM (13)	1.65	0.06
		PM ₁₀	1.65	0.06
		PM _{2.5}	1.65	0.06
		VOC	0.53	0.02
4061-JT	Gas Turbine 4061 Bypass Valve	NO _x	0.23	0.87
		CO	0.10	0.29
		SO ₂	0.01	0.01
		PM	0.01	0.01
		PM ₁₀	0.01	0.01
		PM _{2.5}	0.01	0.01
		VOC	1.52	0.01
		Ethylene	0.01	0.01
		Propylene	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
4062-JT	Gas Turbine 4062 Bypass Valve	NO _x	0.23	0.87
		CO	0.10	0.29
		SO ₂	0.01	0.01
		PM	0.01	0.01
		PM ₁₀	0.01	0.01
		PM _{2.5}	0.01	0.01
		VOC	1.52	0.01
		Ethylene	0.01	0.01
		Propylene	0.01	0.01
4063-JT	Gas Turbine 4063 Bypass Valve	NO _x	0.23	0.87
		CO	0.10	0.29
		SO ₂	0.01	0.01
		PM	0.01	0.01
		PM ₁₀	0.01	0.01
		PM _{2.5}	0.01	0.01
		VOC	1.52	0.01
		Ethylene	0.01	0.01
		Propylene	0.01	0.01
4064-JT	Gas Turbine 4064 Bypass Valve	NO _x	0.23	0.87
		CO	0.10	0.29
		SO ₂	0.01	0.01
		PM	0.01	0.01
		PM ₁₀	0.01	0.01
		PM _{2.5}	0.01	0.01
		VOC	1.52	0.01
		Ethylene	0.01	0.01
		Propylene	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
4065-JT	Gas Turbine 4065 Bypass Valve	NO _x	0.23	0.87
		CO	0.10	0.29
		SO ₂	0.01	0.01
		PM	0.01	0.02
		PM ₁₀	0.01	0.02
		PM _{2.5}	0.01	0.02
		VOC	<0.01	0.01
4026-U	Waste Heat Boiler/SCR1 Normal Operations	NO _x	44.04	107.16
		CO	53.61	143.51
		VOC (6)	10.77	32.80
		SO ₂	20.42	29.82
		PM (13)	16.68	58.17
		PM ₁₀	16.68	58.17
		PM _{2.5}	16.68	58.17
		NH ₃	18.08	55.45
		Ethylene	10.77	24.60
		Propylene	10.77	8.20
4026-U	Waste Heat Boiler/SCR1 Maintenance, Startup, and Shutdown (MSS) Activities	NO _x	73.40	-
		CO	119.14	-
		NH ₃	54.25	-
1-103B	Regenerator Heater	NO _x	0.25	0.33
		CO	0.22	0.29
		VOC (6)	0.01	0.01
		SO ₂	0.04	0.05
		PM ₁₀	0.02	0.02
		PM _{2.5}	0.02	0.02
		Ethylene	0.01	0.01
		Propylene	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
2205-1	Process Water Tanks	VOC	2.43	0.06
		Benzene	0.07	0.01
2205-2	Process Water Tanks	VOC	1.21	0.01
		Benzene	0.04	0.01
2300-1	Process Water Tanks	VOC	4.44	0.12
		Benzene	0.13	0.01
2300-2	Outfall Water Tanks	VOC	1.28	0.01
		Benzene	0.04	0.01
M-222	Storage Tank	VOC	0.10	0.16
		Butadiene	0.01	0.02
		Benzene	0.03	0.05
M-223	Storage Tank	VOC	0.15	0.16
		Butadiene	0.02	0.02
		Benzene	0.04	0.05
M-1002	Storage Tank	VOC	0.76	1.92
		Butadiene	0.24	0.61
		Benzene	0.46	1.15
T-136A	Storage Tank	VOC	1.89	0.08
T-136B	Storage Tank	VOC	1.21	0.04
4000-B	Charge Gas Heater/SCR2	NO _x	3.70	13.25
		CO	17.83	18.92
		VOC (6)	0.69	2.84
		SO ₂	6.48	18.92
		PM (13)	1.24	3.22
		PM ₁₀	1.19	3.07
		PM _{2.5}	1.19	3.07
		NH ₃	2.18	8.89
		Ethylene	0.49	2.0
Propylene	0.12	0.50		

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
4000-B	Charge Gas Heater/SCR2 MSS Activities	NO _x	37.04	-
		NH ₃	6.02	-
1-104BD	Auxiliary Boiler (227.5 MMBtu/hr, LHV)	NO _x (8) (PSD)	30.24	105.96
		CO (PSD)	20.74	72.67
		VOC (6)	1.92	6.71
		SO ₂	1.26	4.42
		PM ₁₀ (PSD)	2.10	7.36
		PM _{2.5}	2.10	7.36
		Ethylene	1.35	4.73
		Propylene	0.24	0.83
1-105A	Main Flare Normal Operations	NO _x	171.51	2.71
		CO	883.53	15.57
		VOC (12)	809.89	11.72
		SO ₂	46.41	0.07
		H ₂ S	0.50	0.01
		Ethylene	84.03	1.54
		Propylene	419.90	6.22
		Butene	50.27	0.48
		Butadiene	33.51	0.08
		Benzene	28.49	0.08
	Main Flare MSS Activities	NO _x	87.70	11.50
		CO	447.00	58.60
		VOC (12)	670.00	44.88
		SO ₂	24.00	2.77
		H ₂ S	0.27	0.02
		Ethylene	62.22	3.99
		Propylene	488.00	19.94
		Butene	48.80	6.38
Butadiene	40.26	0.80		

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		Benzene	30.50	0.80
1-105A-109MSS	Main Flare MSS Activities-109 Splitter Project	NO _x	(14)	0.03
		CO		0.15
		VOC		0.22
		Propylene		0.07
		Butene		0.01
		Butadiene		0.01
		Benzene		0.01
TO-STK	RTO Stack (10) Normal Operations	NO _x	0.10	0.28
		CO	0.08	0.23
		VOC	0.13	0.48
		SO ₂	0.01	0.05
		PM ₁₀	0.15	0.58
	RTO Stack (10) MSS Activities	NO _x	0.10	0.01
		CO	0.08	0.01
		VOC	5.21	0.01
		SO ₂	0.01	0.01
		PM ₁₀	0.01	0.01
DC-TANK	Fuel Tank	VOC	0.06	0.01
TO-TANK	Fuel Tank	VOC	0.06	0.01
185-F	Fuel Tank	VOC	0.02	0.01
187-F	Fuel Tank	VOC	0.02	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
F-1-101-U	Cooling Tower (8 cell) (5)	VOC (12)	3.70	3.86
		PM	0.55	1.93
		PM ₁₀	0.31	1.24
		PM _{2.5}	<0.01	0.02
		Ethylene	0.93	0.39
		Propylene	3.66	1.93
		Butene	0.01	0.01
		Butadiene	0.01	0.01
		Benzene	0.01	0.01
F-2401-UL	Cooling Tower (3 cell) (5)	VOC (12)	1.39	1.45
		PM	0.21	0.72
		PM ₁₀	0.12	0.46
		PM _{2.5}	<0.01	<0.01
		Ethylene	0.14	0.15
		Propylene	0.70	0.73
		Butene	0.01	0.01
		Butadiene	0.01	0.01
		Benzene	0.01	0.01
F-1-L4	Loading Flare K/O	VOC	0.57	0.01
LD-SLUDGE	Loading CPI Sludge	VOC	0.24	0.01
LD-TAR	Loading Tar	VOC	2.63	0.08
ENG-R	RTO Compressor	NO _x	2.43	10.62
		CO	0.24	2.12
		VOC	0.08	0.34
		SO ₂	0.49	0.99
		PM ₁₀	0.23	1.06
BLOW-VENT	Blow Down Vents (11)	VOC	4.94	0.98

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
ANA-VENT	Process Analyzers Vent (9)	NO _x	0.01	0.01
		CO	0.01	0.01
		VOC (6)	0.05	0.23
		Propylene	0.02	0.08
V-1-L4	Propylene Truck Loading	VOC	0.24	0.40
V-2-L4	Propylene Rail Loading	VOC	0.12	0.03
267-F	Storage Tank	VOC	0.02	0.01
M-102A	Storage Tank	VOC	0.19	0.01
M-102B	Storage Tank	VOC	0.26	0.01
137-F	Storage Tank	VOC	0.01	0.01
179-F/797F	Fuel Tank	VOC	0.21	0.01
F-1-GB	Stormwater System	VOC	5.43	1.25
MAINT-METER	Meter Calibrations	VOC	0.01	0.01
PLANT	Plant Fugitives (5)	VOC (12)	11.58	49.41
		Ethylene	0.58	2.47
		Propylene	5.79	24.71
		Butene	0.12	0.49
		Butadiene	0.01	0.05
		Benzene	0.12	0.49
PLANT-109	Plant Fugitives – 109 Splitter	VOC	0.05	0.23
		Propylene	0.02	0.09
		Butene	0.01	0.01
		Butadiene	0.01	0.01
		Benzene	0.01	0.01
A-206	Regenerator Scrubber	VOC	0.67	0.01
TOTES	Containers	VOC	1.51	0.15
WTC	Containers	Caustic	1.39	0.14

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LD-CAT	Catalyst Handling	PM ₁₀	0.04	0.03
		PM _{2.5}	0.03	0.02
CAT-TRANSFER ₁	Catalyst Transfer	PM ₁₀	0.09	0.02
		PM _{2.5}	0.06	0.02
CAT-CLEAR ₁	Catalyst Clearing	PM ₁₀	11.14	0.13
		PM _{2.5}	8.35	0.10
PLANT NH ₃	Ammonia Handling	NH ₃	0.18	0.57
DEGR	Cold Solvent Cleaner	VOC	0.01	0.05
PLANT MSS	Process Systems MSS	VOC (12)	43.84	8.00
		Ethylene	2.83	0.52
		Propylene	18.84	3.44
		Butene	12.50	0.05
		Butadiene	0.50	0.01
		Benzene	1.00	0.01
PLANT-109 MSS	Plant-109 Splitter Process Systems MSS	VOC	(15)	0.44
		Propylene		0.13
		Butene		0.01
		Butadiene		0.01
		Benzene		0.01
PLANT MSS	Transfer System MSS	VOC	0.19	0.01
PLANT MSS	Storage System MSS	VOC	2.29	1.03
PLANT MSS	Tank M-1002 MSS	VOC	294.39	0.69
PLANT MSS	Tank M-223 MSS	VOC	31.25	0.04
PLANT MSS	Tank M-224 MSS	VOC	31.25	0.04
PLANT MSS	Blasting	PM (13)	0.12	0.02
		PM ₁₀	0.03	0.01
		PM _{2.5}	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
PLANT MSS	Painting	VOC	13.01	1.59
		PM	0.25	0.06
		PM10	0.25	0.06
		PM2.5	0.25	0.06
4030-EJ	Steam Eductor Normal Operation and Maintenance, Startup, and Shutdown (MSS)	NO _x	2.54	2.39
		CO	191.11	1.61
		SO ₂	0.10	0.01
		VOC (12)	260.81	5.10
		Ethylene	13.17	0.81
		Propylene	39.24	1.27
		Butene	2.60	0.02
		Butadiene	0.13	0.01
		Benzene	0.26	0.01

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) NO_x - total oxides of nitrogen
 CO - carbon monoxide
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 SO₂ - sulfur dioxide
 PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 NH₃ - ammonia
 H₂S - hydrogen sulfide
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) The VOC includes HRVOC chemicals; ethylene and propylene.
- (7) Emissions vent to carbon canister when RTO is not in operation.
- (8) The NO_x emission rate is based on the boiler firing plant fuel gas containing hydrogen.
- (9) Emissions for analyzer vents AT9056, AT9057, AT9058, AT9059, AT9090, and AT9095 are included in EPN ANA-VENT.
- (10) The following vents are routed to the RTO when the RTO is in operation: 2004-1 and 2004-2.

Emission Sources - Maximum Allowable Emission Rates

- (11) The EPN BLOW-VENT (Facility Identification Nos 102C, 116J, 117J, 157F, and 210F) emissions represent normal operation values. Startup, shutdown, and maintenance emissions are not authorized from this EPN.
- (12) The VOC includes HRVOC chemicals; ethylene, propylene, butene, and butadiene.
- (13) The PM includes PM₁₀ and PM_{2.5}.
- (14) Hourly allowable emission rates for 109 Splitter project are included in the emission rates for Main Flare MSS Activities at EPN 1-105A.
- (15) Hourly allowable emission rates for the 109 Splitter project are included in the emission rates for Process Systems MSS at EPN PLANT MSS.

Date: July 12, 2016



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Flint Hills Resources Houston Chemical, LLC
Authorizing the Construction and Operation of
Propylene Manufacturing Unit
Located at Houston, Harris County, Texas
Latitude 29° 42' 17" Longitude -95° 15' 2"

Permit: GHGPSDTX137

Issuance Date: June 24, 2016

A handwritten signature in black ink, appearing to read "R. Q. A. Hyle".

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 (TAC) Section 116.116 (30 TAC § 116.116)]¹
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]
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)]
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 in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled “Emission Sources--Maximum Allowable Emission Rates.” [30 TAC § 116.115(b)(2)(F)]¹
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification 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 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 “air pollution” as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

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

Special Conditions

Permit Numbers GHGPSDTX137

1. This permit authorizes emissions only from those emission points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," (MAERT) and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this permit. Also, this permit authorizes planned maintenance, startup and shutdown (MSS) activities that comply with the emission limits in the MAERT.

Emissions Standards and Operating Specifications

2. The annual firing rate of the Charge Gas Heater (EPN 400-B) shall not exceed 3,784,320 million British thermal units per year (MMBtu/yr) on an higher heating value (HHV) basis. The total combined annual firing rate of all combustion sources (Gas Turbines, Regeneration Air Heater, and Waste Heat Boiler) venting through the Waste Heat Boiler stack (EPN 4026-U) shall not exceed 14,016,000 MMBtu/yr on an HHV basis. The annual firing rate of Gas Turbine 5 during MSS shall not exceed 18,000 MMBtu/yr on an HHV basis.
 - A. The permit holder shall monitor and record the firing rates of the Charge Gas Heater and all combustion sources venting through the Waste Heat Boiler stack. The firing rate of Gas Turbine 5 during MSS shall also be monitored and recorded.
 - B. For natural gas, the total fuel flow and the higher heating value measured pursuant to Special Condition No. 6 shall be used to calculate firing rate. For fuel gas, the higher heating value shall be determined monthly and shall be used along with the fuel gas flow measured pursuant to Special Condition No. 6 to calculate firing rate.
3. Fuel for the combustion units shall be pipeline-quality, sweet natural gas and/or fuel gas.
4. Charge Gas Heater [Emission Point Number (EPN) 4000-B; Facility Identification Number (FIN) 4000-B]
 - A. The exhaust temperature shall be less than or equal to 500 °F on a 12-month rolling average basis. The permit holder shall continuously monitor and record the charge gas heater stack exhaust temperature. The outlet temperature must be recorded at least four times an hour (once per quarter of the hour). Stack temperatures recorded during periods of monitoring instrumentation malfunction and maintenance shall be excluded from calculation of the 12-month rolling average, provided that monitoring operation downtime does not exceed 5% of the heater operating time during any 12-month rolling period. The temperature measurement device shall be installed, calibrated, and maintained according to the manufacturer's specifications. The device shall be accurate to within 1 percent of the temperature being measured or 4.5 degrees Fahrenheit, whichever is greater.
 - B. This stack temperature limit applies only during normal heater operations and does not apply during heater commissioning, startup, or shutdown, and stack temperature readings during such periods shall be excluded from the 12-month rolling average.

- C. In addition to the above requirements, the permit holder shall implement the work practices of Appendix A.
5. Waste Heater Boiler (EPN 4026-U; FINs 4026-U, 4061-JT through 4065-JT, 4001-B, 4051-D through 4058-D, and 4002-B)
- A. The exhaust temperature shall be less than or equal to 500 °F on a 12-month rolling average basis. The permit holder shall continuously monitor and record the waste heat boiler stack exhaust temperature. The outlet temperature must be recorded at least four times an hour (once per quarter of the hour). Stack temperatures recorded during periods of monitoring instrumentation malfunction and maintenance shall be excluded from calculation of the 12-month rolling average, provided that monitoring operation downtime does not exceed 5% of the boiler operating time during any 12-month rolling period. The temperature measurement device shall be installed, calibrated, and maintained according to the manufacturer's specifications. The device shall be accurate to within 1 percent of the temperature being measured or 4.5 degrees Fahrenheit, whichever is greater.
 - B. This stack temperature limit applies only during normal boiler operations and does not apply during boiler commissioning, startup, or shutdown, and stack temperature readings during such periods shall be excluded from calculation of the 12-month rolling average.
 - C. In addition to the above requirements, the permit holder shall implement the work practices of Appendix A.

Continuous Demonstration of Compliance

6. The Permittee shall install fuel metering for the Charge Gas Heater (EPN 4000-B) and all combustion sources (Gas Turbines, Regeneration Air Heater, and Waste Heat Boiler) venting through the Waste Heat Boiler stack (EPN 4026-U) (a group of equipment can utilize a common fuel flow meter, as long as actual fuel usage is allocated to the individual equipment based upon actual operating hours and maximum firing rate), and shall:
- A. Continuously measure and record the fuel flow to each combustion source listed above. For the combustion sources venting through the Waste Heat Boiler, the fuel flow measurement system shall provide the capability to totalize the fuel flow for these sources. This may be done using a dedicated device or a computer system that collects, sums, and stores electronic data from continuous fuel flow meters.
 - B. Record the total fuel amount combusted for each combustion source listed above and the total fuel amount combusted in the combustion sources venting through the Waste Heat Boiler on a monthly and 12-month basis.
 - C. For those combustion sources listed above firing natural gas and estimating GHG emissions using the Tier II methodology, the high heat value (HHV) of the natural gas shall be determined as specified by 40 CFR § 98.34(a)(2)(i). For those combustion sources listed above firing fuel gas and estimating GHG emissions using

the Tier III methodology, the carbon content and molecular weight of the fuel gas shall be determined as specified in 40 CFR § 98.34(b)(3). Upon request by TCEQ, EPA, or any other local programs having jurisdiction, Permittee shall provide a sample and/or analysis of the fuel that is fired in any combustion unit covered by this permit at the time of the request, or shall allow a sample to be taken by the agency representative for analysis.

- D. Each fuel flow meter shall be calibrated in accordance with the requirements of 40 CFR § 98.34(b)(1) and meet the accuracy specifications of 40 CFR § 98.3(i).
 - E. Fuel readings recorded during periods of monitoring instrumentation malfunction and maintenance shall be excluded from calculation of the monthly and 12-month totals, provided that monitoring operation downtime does not exceed 5% of the combustion unit operating time during any 12-month rolling period.
7. The cooling tower (8 cell) (EPN F-1-101-U) shall be monitored in accordance with Air Quality Permit Nos. 18999, PSDTX755 and N216.
8. New fugitive components authorized by TCEQ Project No. 236134 that are subject to monitoring under Special Condition No. 8 of Air Quality Permit Nos. 18999, PSDTX755 and N216 or in natural gas or fuel gas service shall be monitored in accordance with that condition.
9. Permit holder shall install, operate, and maintain an oxygen analyzer in the stack of the Charge Gas Heater (EPN 4000-B). The oxygen analyzer shall continuously monitor and record oxygen concentration in the stack. Readings shall be taken at least once every 15 minutes and the average hourly value shall be recorded each hour.
- A. A relative accuracy test audit (RATA) is required once every four quarters in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.1.
 - B. The oxygen analyzer shall be quality-assured at least quarterly, except for a quarter in which a RATA is performed, using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2.
 - C. The permit holder shall perform a visual inspection of the heater and duct work to identify sources of air leaks when the oxygen analyzer indicates an oxygen concentration greater than 10% during normal operation (excluding MSS activities).
 - D. Oxygen readings recorded during periods of monitoring instrumentation malfunction and maintenance shall be excluded from the calculation of hourly averages provided that monitoring operation downtime does not exceed 5% of the heater operating time during any 12-month rolling period.

Emissions Calculations

10. Compliance with the emission limits of the MAERT shall be demonstrated using the data generated through Special Condition No. 6 and the applicable equations of 40 Code of

Federal Regulations Part 98, Mandatory Greenhouse Gas Reporting. Global warming potentials are to be based on values listed in footnote #3 of the MAERT.

Recordkeeping Requirements

11. The following records shall be kept at the plant for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ, EPA, or any air pollution control agency with jurisdiction:
 - A. A copy of this permit.
 - B. Permit application dated June 3, 2015, and subsequent representations submitted to the TCEQ.
12. Permit holders must keep records sufficient to demonstrate compliance with 30 Texas Administrative Code § 116.164. If construction, a physical change or a change in method of operation results in Prevention of Significant Deterioration (PSD) review for criteria pollutants, records shall be sufficient to demonstrate the amount of emissions of GHGs from the source as a result of construction, a physical change or a change in method of operation does not require authorization under 30 TAC §116.164(a). If there is construction, a physical change or change in the method of operation that will result in a net emissions increase of 75,000 tpy or more CO₂e and PSD review is triggered for criteria pollutants, greenhouse gas emissions are subject to PSD review.
13. The following information shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction:
 - A. Monthly and 12-month total of combustion unit firing rates as required by Special Condition No. 2.
 - B. Hourly charge gas heater stack exhaust temperature measurements and rolling 12-month averages of the hourly measurements as required by Special Condition No. 4.
 - C. Hourly waste heat boiler stack exhaust temperature measurements and rolling 12-month averages of the hourly measurements as required by Special Condition No. 5.
 - D. Records of temperature monitoring device maintenance and replacement including date.
 - E. Hourly fuel flow measurements and monthly and rolling 12-month totals of the hourly measurements as required by Special Condition No. 6.
 - F. Monthly records of fuel analyses required by Special Condition No. 6.C.
 - G. Records of cooling tower monitoring required by Special Condition No. 7. These records may be kept as part of the records of Air Quality Permit Nos. 18999, PSDTX755 and N216.

H. Records of fugitive component monitoring required by Special Condition No. 8.

Date: June 24, 2016

Appendix A
Work Practices

EPN	Work Practice	Minimum Frequency
4000-B	Inspect and tune burners and conduct a visual inspection of the charge gas heater components	Annual
4000-B	Perform preventative maintenance	As required
4026-U	Tune and optimize performance of the turbines and the regeneration air heater and waste heat boiler burners to maximize overall process thermal efficiency	Annual
4026-U	Perform preventative maintenance	As required

Date: June 24, 2016

Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX137

This table lists the maximum allowable emission rates of greenhouse gas (GHG) emissions, as defined in Title 30 Texas Administrative Code § 101.1, for all sources of GHG air contaminants on the applicant's property that are authorized 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 authorized by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates
			TPY (4)
4000-B	Charge Gas Heater/ SCR2	CO ₂ (5)	232,901
		CH ₄ (5)	13
		N ₂ O (5)	3
		CO ₂ e	233,960
4026-B	Waste Heat Boiler/ SCR1	CO ₂ (5)	775,068
		CH ₄ (5)	27
		N ₂ O (5)	4
		CO ₂ e	777,066
4065-JT	Gas Turbine 4065 MSS	CO ₂ (5)	1,053
		CH ₄ (5)	0.02
		N ₂ O (5)	<0.01
		CO ₂ e	1,054
F-1-101-U	Cooling Tower (8 cell)	CH ₄ (5)	(6)
		CO ₂ e	(6)
PLANT	Plant Fugitives (6)	CH ₄ (5)	(6)
		CO ₂ e	(6)

(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) CO₂ - carbon dioxide
- N₂O - nitrous oxide
- CH₄ - methane
- HFCs - hydrofluorocarbons
- PFCs - perfluorocarbons

Emission Sources - Maximum Allowable Emission Rates

SF₆ - sulfur hexafluoride

CO₂e - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015):
CO₂ (1), N₂O (298), CH₄(25), SF₆ (22,800), HFC (various), PFC (various)

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. These rates include emissions from maintenance, startup, and shutdown.
- (5) Emission rate is given for informational purposes only and does not constitute enforceable limit.
- (6) There are no enforceable numerical emission limits for these sources. They are subject to the work practices noted in Special Condition Nos. 6 and 7 of this permit.

Date: June 24, 2016