

# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO  
Phillips 66 Company

AUTHORIZING THE OPERATION OF  
Borger Refinery  
Borger Expansion  
Petroleum Refineries

LOCATED AT  
Hutchinson County, Texas  
Latitude 35° 41' 58" Longitude 101° 22' 4"  
Regulated Entity Number: RN102495884

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:     O4509     Issuance Date: \_\_\_\_\_

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For the Commission

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## **General Terms and Conditions**

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

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

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

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

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

## **Special Terms and Conditions:**

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

1. Permit holder shall comply with the following requirements:
  - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
  - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.
  - C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
  - D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
  - E. Emission units subject to 40 CFR Part 63, Subparts CC, UUU, and DDDDD as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter

113, Subchapter C, §§ 113.340, 113.780, and 113.1130, respectively, which incorporate the 40 CFR Part 63 Subparts by reference.

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
  - A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
  - B. Title 30 TAC § 101.3 (relating to Circumvention)
  - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
  - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
  - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
  - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
  - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
  - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
  - I. Title 30 TAC § 101.222 (relating to Demonstrations)
  - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
  - A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
    - (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
    - (ii) Title 30 TAC § 111.111(a)(1)(E)
    - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
    - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that

does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

- (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
- (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.
- (3) Records of all observations shall be maintained.
- (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer’s eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (5) Compliance Certification:
  - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
  - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) 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<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
  - (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<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
  - (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. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
  - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
  - (ii) Sources with an effective stack height ( $h_e$ ) less than the standard effective stack height ( $H_e$ ), must reduce the allowable emission level by multiplying it by  $[h_e/H_e]^2$  as required in 30 TAC § 111.151(b)
  - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
- A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
  - B. Title 40 CFR § 60.8 (relating to Performance Tests)



- C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
  - D. Title 40 CFR § 60.12 (relating to Circumvention)
  - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
  - F. Title 40 CFR § 60.14 (relating to Modification)
  - G. Title 40 CFR § 60.15 (relating to Reconstruction)
  - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
5. The permit holder shall comply with the 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)
6. For facilities where total annual benzene quantity from waste is greater than or equal to 10 megagrams 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 § 61.342(c)(1)(i) - (iii) (relating to Standards: General)
  - B. Title 40 CFR § 61.342(e)(1) (relating to Standards: General)
  - C. Title 40 CFR § 61.342(e)(2)(i) - (ii) (relating to Standards: General)
  - D. Title 40 CFR § 61.342(g) (relating to Standards: General)
  - E. Title 40 CFR § 61.350(a) and (b) (relating to Standards: Delay of Repair)
  - F. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions)
  - G. Title 40 CFR § 61.355(k)(1) - (6), and (7)(i) - (iv) (relating to Test Methods, Procedures, and Compliance Provisions), for calculation procedures

- H. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)
  - I. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)
  - J. Title 40 CFR § 61.356(b)(4) (relating to Recordkeeping Requirements)
  - K. Title 40 CFR § 61.356(b)(5) (relating to Recordkeeping Requirements)
  - L. Title 40 CFR § 61.357(a), (d)(1), (d)(2) (d)(6) and (d)(8) (relating to Reporting Requirements)
  - M. Title 40 CFR § 61.357(d)(5) (relating to Reporting Requirements)
7. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.
8. For sources subject to emission standards in 40 CFR Part 63, Subpart CC, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.340 incorporated by reference):
- A. Title 40 CFR § 63.640(m) and (m)(1) - (2) (relating to Applicability and Designation of Affected Source), for units and emission points changing from Group 2 to Group 1 status
  - B. Title 40 CFR § 63.642(f) (relating to General Standards), for reporting
  - C. For benzene fenceline monitoring, the permit holder shall comply with the following requirements:
    - (i) Title 40 CFR § 63.658(a) - (k) (relating to Fenceline Monitoring Provisions)
    - (ii) Title 40 CFR § 63.655(h), (h)(8), and (h)(10) (relating to Reporting and Recordkeeping Requirements), for reporting
    - (iii) Title 40 CFR § 63.655(i), (i)(6), and (i)(8) (relating to Reporting and Recordkeeping Requirements), for recordkeeping
  - D. Group 1 process wastewater streams not managed in a wastewater management unit subject to 40 CFR Part 63, Subpart G shall comply with 40 CFR Part 61, Subpart FF as specified in 40 CFR §§ 63.647(a) - (c) and 63.655(a)
9. The permit holder shall comply with the requirement to prepare and implement an Operations and Maintenance plan in accordance with 40 CFR Part 63, Subpart UUU, § 63.1574(f) (Title 30 TAC Chapter 113, Subchapter C, § 113.780 incorporated by reference).

#### **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 or minimum frequency 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 (including the terms, conditions, monitoring, recordkeeping, and reporting identified in registered PBRs and permits by rule identified in the PBR Supplemental Tables dated October 12, 2023 in the application for project 35727), 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. 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
  - (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

### **Risk Management Plan**

16. 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**

17. 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**

18. 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)**

19. 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** ..... 14

**Applicable Requirements Summary** ..... 16

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**

<b>Unit/Group/ Process ID No.</b>	<b>Unit Type</b>	<b>Group/Inclusive Units</b>	<b>SOP Index No.</b>	<b>Regulation</b>	<b>Requirement Driver</b>
10-H2	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
10-H2	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60JA-01	40 CFR Part 60, Subpart Ja	No changing attributes.
10-H2	PROCESS HEATERS/FURNACES	N/A	63DDDDD-01	40 CFR Part 63, Subpart DDDDD	No changing attributes.
10-H3	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
10-H3	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60JA-01	40 CFR Part 60, Subpart Ja	No changing attributes.
10-H3	PROCESS HEATERS/FURNACES	N/A	63DDDDD-01	40 CFR Part 63, Subpart DDDDD	No changing attributes.
88-H1	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
88-H1	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	60JA-01	40 CFR Part 60, Subpart Ja	No changing attributes.
88-H1	PROCESS HEATERS/FURNACES	N/A	63DDDDD-02	40 CFR Part 63, Subpart DDDDD	No changing attributes.
88-V1	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS	N/A	63UUU-01	40 CFR Part 63, Subpart UUU	CRU HCl Compliance Method = Complying with the HCl percent reduction limit



### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	SRU				
88-V1	FCCU CAT REGEN/FUEL GAS COMBUSTION/CLAUS SRU	N/A	63UUU-02	40 CFR Part 63, Subpart UUU	CRU HCl Compliance Method = Complying with the HCl concentration limit
F-CRUDEFLEX	FUGITIVE EMISSION UNITS	N/A	60GGGA-ALL	40 CFR Part 60, Subpart GGGa	No changing attributes.
F-CRUDEFLEX	FUGITIVE EMISSION UNITS	N/A	63CCVV-ALL	40 CFR Part 63, Subpart CC	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)
10-H2	EP	R1111-1	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
10-H2	EU	60JA-01	Hydrogen Sulfide	40 CFR Part 60, Subpart Ja	§ 60.102a(g)(1)(ii) § 60.102a(a) § 60.102a(g) § 60.102a(g)(1) § 60.103a(c) § 60.103a(d) § 60.103a(d)(1) § 60.103a(d)(5) [G]§ 60.103a(e)	For each fuel gas combustion device the owner or operator shall not burn in any fuel gas combustion device any fuel gas that contains H <sub>2</sub> S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H <sub>2</sub> S in excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis.	§ 60.104a(a) § 60.104a(c) [G]§ 60.104a(i) § 60.107a(a) § 60.107a(a)(2) § 60.107a(a)(2)(i) § 60.107a(a)(2)(ii) § 60.107a(a)(2)(iii) § 60.107a(a)(2)(iv) § 60.107a(i) § 60.107a(i)(1)(ii)	§ 60.108a(a) § 60.108a(c) [G]§ 60.108a(c)(6) [G]§ 60.108a(d)	§ 60.108a(a) § 60.108a(b) [G]§ 60.108a(d)
10-H2	EU	60JA-01	NO <sub>x</sub>	40 CFR Part 60, Subpart Ja	§ 60.102a(g)(2)(i)(A) § 60.102a(a) § 60.102a(g) § 60.102a(g)(2) § 60.102a(g)(2)(i)	For each natural draft process heater with a rated capacity of greater than 40 MMBtu/hr on a higher heating value basis, the owner or operator shall not discharge to the atmosphere any emissions of NO <sub>x</sub> in excess of 40 ppmv (dry basis, corrected to 0-percent excess air) determined daily on a 30-day rolling average basis.	§ 60.104a(a) § 60.104a(c) § 60.104a(i) § 60.104a(i)(1) § 60.104a(i)(2) § 60.104a(i)(3) § 60.104a(i)(5) § 60.104a(i)(8) § 60.107a(c) § 60.107a(c)(1) § 60.107a(c)(2) § 60.107a(c)(3) § 60.107a(c)(4) § 60.107a(c)(5) § 60.107a(i) § 60.107a(i)(3) § 60.107a(i)(3)(i)	§ 60.108a(a) [G]§ 60.108a(d)	§ 60.108a(a) § 60.108a(b) [G]§ 60.108a(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)
10-H2	EU	63DDDDD-01	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7500(a)(1) § 63.7500(a)(3) § 63.7505(a) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater must conduct a tune-up of the boiler or process heater annually as specified in § 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions.	§ 63.7510(g) § 63.7515(d) [G]§ 63.7521(f) [G]§ 63.7521(g) § 63.7521(h) § 63.7521(i) § 63.7530(g) § 63.7540(a) [G]§ 63.7540(a)(10) [G]§ 63.7540(c)	§ 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(g) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	[G]§ 63.7521(g) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(b) § 63.7545(c) [G]§ 63.7545(e) [G]§ 63.7545(f) § 63.7550(a) [G]§ 63.7550(b) [G]§ 63.7550(c) [G]§ 63.7550(h)
10-H3	EP	R1111-1	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
10-H3	EU	60JA-01	Hydrogen Sulfide	40 CFR Part 60, Subpart Ja	§ 60.102a(g)(1)(ii) § 60.102a(a) § 60.102a(g) § 60.102a(g)(1) § 60.103a(c) § 60.103a(d) § 60.103a(d)(1) § 60.103a(d)(5) [G]§ 60.103a(e)	For each fuel gas combustion device the owner or operator shall not burn in any fuel gas combustion device any fuel gas that contains H <sub>2</sub> S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H <sub>2</sub> S in excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis.	§ 60.104a(a) § 60.104a(c) [G]§ 60.104a(j) § 60.107a(a) § 60.107a(a)(2) § 60.107a(a)(2)(i) § 60.107a(a)(2)(ii) § 60.107a(a)(2)(iii) § 60.107a(a)(2)(iv) § 60.107a(i) § 60.107a(i)(1)(ii)	§ 60.108a(a) § 60.108a(c) [G]§ 60.108a(c)(6) [G]§ 60.108a(d)	§ 60.108a(a) § 60.108a(b) [G]§ 60.108a(d)
10-H3	EU	60JA-01	NO <sub>x</sub>	40 CFR Part 60, Subpart Ja	§ 60.102a(g)(2)(i)(A)	For each natural draft process heater with a rated	§ 60.104a(a) § 60.104a(c)	§ 60.108a(a) [G]§ 60.108a(d)	§ 60.108a(a) § 60.108a(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)
					§ 60.102a(a) § 60.102a(g) § 60.102a(g)(2) § 60.102a(g)(2)(i)	capacity of greater than 40 MMBtu/hr on a higher heating value basis, the owner or operator shall not discharge to the atmosphere any emissions of NOx in excess of 40 ppmv (dry basis, corrected to 0-percent excess air) determined daily on a 30-day rolling average basis.	§ 60.104a(i) § 60.104a(i)(1) § 60.104a(i)(2) § 60.104a(i)(3) § 60.104a(i)(5) § 60.104a(i)(8) § 60.107a(c) § 60.107a(c)(1) § 60.107a(c)(2) § 60.107a(c)(3) § 60.107a(c)(4) § 60.107a(c)(5) § 60.107a(i) § 60.107a(i)(3) § 60.107a(i)(3)(i)		[G]§ 60.108a(d)
10-H3	EU	63DDDDD-01	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7500(a)(1) § 63.7500(a)(3) § 63.7505(a) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater must conduct a tune-up of the boiler or process heater annually as specified in § 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions.	§ 63.7510(g) § 63.7515(d) [G]§ 63.7521(f) [G]§ 63.7521(g) § 63.7521(h) § 63.7521(i) § 63.7530(g) § 63.7540(a) [G]§ 63.7540(a)(10) [G]§ 63.7540(c)	§ 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(g) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	[G]§ 63.7521(g) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(b) § 63.7545(c) [G]§ 63.7545(e) [G]§ 63.7545(f) § 63.7550(a) [G]§ 63.7550(b) [G]§ 63.7550(c) [G]§ 63.7550(h)
88-H1	EP	R1111-1	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
88-H1	EU	60JA-01	Hydrogen Sulfide	40 CFR Part 60, Subpart Ja	§ 60.102a(g)(1)(ii) § 60.102a(a) § 60.102a(g) § 60.102a(g)(1) § 60.103a(c) § 60.103a(d) § 60.103a(d)(1) § 60.103a(d)(5) [G]§ 60.103a(e)	For each fuel gas combustion device the owner or operator shall not burn in any fuel gas combustion device any fuel gas that contains H <sub>2</sub> S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H <sub>2</sub> S in excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis.	§ 60.104a(a) § 60.104a(c) [G]§ 60.104a(j) § 60.107a(a) § 60.107a(a)(2) § 60.107a(a)(2)(i) § 60.107a(a)(2)(ii) § 60.107a(a)(2)(iii) § 60.107a(a)(2)(iv) § 60.107a(i) § 60.107a(i)(1)(ii)	§ 60.108a(a) § 60.108a(c) [G]§ 60.108a(c)(6) [G]§ 60.108a(d)	§ 60.108a(a) § 60.108a(b) [G]§ 60.108a(d)
88-H1	EU	60JA-01	NO <sub>x</sub>	40 CFR Part 60, Subpart Ja	§ 60.102a(g)(2)(i)(A) § 60.102a(a) § 60.102a(g) § 60.102a(g)(2) § 60.102a(g)(2)(i)	For each natural draft process heater with a rated capacity of greater than 40 MMBtu/hr on a higher heating value basis, the owner or operator shall not discharge to the atmosphere any emissions of NO <sub>x</sub> in excess of 40 ppmv (dry basis, corrected to 0-percent excess air) determined daily on a 30-day rolling average basis.	§ 60.104a(a) § 60.104a(c) § 60.104a(i) § 60.104a(i)(1) § 60.104a(i)(2) § 60.104a(i)(3) § 60.104a(i)(5) § 60.104a(i)(8) § 60.107a(c) § 60.107a(c)(1) § 60.107a(c)(2) § 60.107a(c)(3) § 60.107a(c)(4) § 60.107a(c)(5) § 60.107a(i) § 60.107a(i)(3) § 60.107a(i)(3)(i)	§ 60.108a(a) [G]§ 60.108a(d)	§ 60.108a(a) § 60.108a(b) [G]§ 60.108a(d)
88-H1	EU	63DDDDD-02	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7500(a)(1)-Table 3.3 § 63.7500(a)(1) § 63.7500(a)(3) § 63.7505(a) § 63.7540(a) [G]§ 63.7540(a)(10) § 63.7540(a)(13)	A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater must conduct a tune-up of the boiler or process heater	§ 63.7510(g) § 63.7515(d) [G]§ 63.7521(f) [G]§ 63.7521(g) § 63.7521(h) § 63.7521(i) § 63.7530(g) § 63.7540(a)	§ 63.7555(a) § 63.7555(a)(1) § 63.7555(a)(2) § 63.7555(g) § 63.7555(h) § 63.7560(a) § 63.7560(b) § 63.7560(c)	[G]§ 63.7521(g) § 63.7530(e) § 63.7530(f) § 63.7545(a) § 63.7545(b) § 63.7545(c) [G]§ 63.7545(e) [G]§ 63.7545(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)
						annually as specified in § 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions.	[G]§ 63.7540(a)(10) [G]§ 63.7540(c)		§ 63.7550(a) [G]§ 63.7550(b) [G]§ 63.7550(c) [G]§ 63.7550(h)
88-V1	EU	63UUU-01	Hydrogen Chloride	40 CFR Part 63, Subpart UUU	§ 63.1567(a)(1)-Table 22.3 § 63.1567(a)(1) § 63.1567(a)(1)(i) § 63.1567(a)(2) § 63.1567(a)(2)-Table 23.1 § 63.1567(a)(3) § 63.1567(b)(3) § 63.1567(b)(4) § 63.1567(b)(4)(ii) § 63.1567(b)(5) § 63.1567(b)(5)-Table 26.2 § 63.1567(c)(1) § 63.1570(a) § 63.1570(c) § 63.1570(d) § 63.1571(d) § 63.1571(d)(4) [G]§ 63.1571(e)	For each new semi-regenerative, cyclic, or continuous CRU, you must reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.	§ 63.1567(b)(1) § 63.1567(b)(1)-Table 24.1 § 63.1567(b)(2) § 63.1567(b)(2)-Table 25.1.a.(1) § 63.1567(b)(2)-Table 25.1.a.(2) § 63.1567(b)(2)-Table 25.1.b § 63.1567(b)(2)-Table 25.1.c § 63.1567(b)(2)-Table 25.1.d § 63.1567(b)(2)-Table 25.1.e.(1) § 63.1567(b)(2)-Table 25.1.e.(2) § 63.1567(b)(2)-Table 25.1.e.(3) § 63.1567(b)(2)-Table 25.1.e.(4) § 63.1567(b)(2)-Table 25.2.a.i § 63.1567(b)(2)-Table 25.2.b.i § 63.1567(c)(1)-Table 28.1.a § 63.1567(c)(1)-Table 28.1.b § 63.1567(c)(2) § 63.1570(c) § 63.1570(d) § 63.1572(c)(4) § 63.1572(c)(5) [G]§ 63.1576(a) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1567(b)(1)-Table 24.1 § 63.1567(b)(2)-Table 25.1.e.(2) § 63.1567(b)(2)-Table 25.1.e.(3) § 63.1567(b)(2)-Table 25.1.e.(4) § 63.1567(b)(2)-Table 25.2.a.i § 63.1567(b)(2)-Table 25.2.b.i § 63.1567(c)(1)-Table 28.1.a § 63.1567(c)(1)-Table 28.1.b § 63.1567(c)(2) § 63.1570(c) § 63.1570(d) § 63.1572(c)(4) § 63.1572(c)(5) [G]§ 63.1576(a) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1567(b)(6) § 63.1567(b)(7) § 63.1570(f) § 63.1571(a) § 63.1571(d)(4) [G]§ 63.1574(a) § 63.1574(c) § 63.1574(d) § 63.1574(d)-Table 42.1 § 63.1574(d)-Table 42.2 § 63.1574(d)-Table 42.3 § 63.1575(a) § 63.1575(a)-Table 43.1 § 63.1575(a)-Table 43.2 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(d) [G]§ 63.1575(f) § 63.1575(g) § 63.1575(k) [G]§ 63.1575(k)(1) [G]§ 63.1575(l)

**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)
							§ 63.1571(a) § 63.1571(a)(1) [G]§ 63.1571(b) § 63.1572(c) § 63.1572(c)(1) § 63.1572(c)(1)-Table 41.8 § 63.1572(c)(2) § 63.1572(c)(3) § 63.1572(c)(4) [G]§ 63.1572(d)		
88-V1	EU	63UUU-01	TOC	40 CFR Part 63, Subpart UUU	§ 63.1566(a)(1)-Table 15.1 § 63.1566(a)(1) § 63.1566(a)(1)(i) § 63.1566(a)(2) § 63.1566(a)(2)-Table 16.1 § 63.1566(a)(3) § 63.1566(a)(4) § 63.1566(a)(5) § 63.1566(b)(3) § 63.1566(b)(4) § 63.1566(b)(6) § 63.1566(b)(6)-Table 19.1 § 63.1566(c)(1) § 63.1566(c)(2) § 63.1570(a) § 63.1570(c) § 63.1570(d) § 63.1571(d) § 63.1571(d)(4) [G]§ 63.1571(e) § 63.670(c) § 63.671(a)	For each applicable process vent for a new or existing catalytic reforming unit, you must vent emissions of total organic compounds (TOC) to a flare that meets the control device requirements of §63.670. (Option 1).	§ 63.1566(b)(1) § 63.1566(b)(1)-Table 17.1 § 63.1566(b)(2) § 63.1566(b)(2)-Table 18.1.a § 63.1566(b)(2)-Table 18.1.b § 63.1566(b)(5) § 63.1566(b)(5)(i) § 63.1566(c)(1)-Table 20.1 § 63.1566(c)(1)-Table 21.1 § 63.1571(a) § 63.1571(a)(1) § 63.1572(c) [G]§ 63.1572(d)	§ 63.1566(c)(1)-Table 21.1 § 63.1570(c) § 63.1570(d) [G]§ 63.1576(a) § 63.1576(c) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1566(b)(7) § 63.1566(b)(8) § 63.1570(f) § 63.1571(a) § 63.1571(d)(4) [G]§ 63.1574(a) § 63.1574(c) § 63.1574(d) § 63.1574(d)-Table 42.1 § 63.1574(d)-Table 42.2 § 63.1574(d)-Table 42.3 § 63.1575(a) § 63.1575(a)-Table 43.1 § 63.1575(a)-Table 43.2 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(f) § 63.1575(g) § 63.1575(k) [G]§ 63.1575(k)(1) [G]§ 63.1575(l)
88-V1	EU	63UUU-02	Hydrogen Chloride	40 CFR Part 63, Subpart UUU	§ 63.1567(a)(1)-Table 22.3	For each new semi-regenerative, cyclic, or	§ 63.1567(b)(1) § 63.1567(b)(1)-	§ 63.1567(b)(1)-Table 24.1	§ 63.1567(b)(6) § 63.1567(b)(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)
					§ 63.1567(a)(1) § 63.1567(a)(1)(ii) § 63.1567(a)(2) § 63.1567(a)(2)-Table 23.1 § 63.1567(a)(3) § 63.1567(b)(3) § 63.1567(b)(4) § 63.1567(b)(4)(i) § 63.1567(b)(5) § 63.1567(b)(5)-Table 26.2 § 63.1567(c)(1) § 63.1570(a) § 63.1570(c) § 63.1570(d) § 63.1571(d) § 63.1571(d)(4) [G]§ 63.1571(e)	continuous CRU, you must reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen.	Table 24.1 § 63.1567(b)(2) § 63.1567(b)(2)-Table 25.1.a.(1) § 63.1567(b)(2)-Table 25.1.a.(2) § 63.1567(b)(2)-Table 25.1.b § 63.1567(b)(2)-Table 25.1.c § 63.1567(b)(2)-Table 25.1.d § 63.1567(b)(2)-Table 25.1.e.(1) § 63.1567(b)(2)-Table 25.1.e.(2) § 63.1567(b)(2)-Table 25.1.e.(3) § 63.1567(b)(2)-Table 25.1.e.(4) § 63.1567(b)(2)-Table 25.2.a.i § 63.1567(b)(2)-Table 25.2.b.i § 63.1567(c)(1)-Table 27.3 § 63.1567(c)(1)-Table 28.1.a § 63.1567(c)(1)-Table 28.1.b § 63.1571(a) § 63.1571(a)(1) [G]§ 63.1571(b) § 63.1572(c) § 63.1572(c)(1) § 63.1572(c)(1)-Table 41.8 § 63.1572(c)(2) § 63.1572(c)(3) § 63.1572(c)(4)	§ 63.1567(b)(2)-Table 25.1.e.(2) § 63.1567(b)(2)-Table 25.1.e.(3) § 63.1567(b)(2)-Table 25.1.e.(4) § 63.1567(b)(2)-Table 25.2.a.i § 63.1567(b)(2)-Table 25.2.b.i § 63.1567(c)(1)-Table 28.1.a § 63.1567(c)(1)-Table 28.1.b § 63.1567(c)(2) § 63.1570(c) § 63.1570(d) § 63.1572(c)(4) § 63.1572(c)(5) [G]§ 63.1576(a) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1570(f) § 63.1571(a) § 63.1571(d)(4) [G]§ 63.1574(a) § 63.1574(c) § 63.1574(d) § 63.1574(d)-Table 42.1 § 63.1574(d)-Table 42.2 § 63.1574(d)-Table 42.3 § 63.1575(a) § 63.1575(a)-Table 43.1 § 63.1575(a)-Table 43.2 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(d) [G]§ 63.1575(f) § 63.1575(g) § 63.1575(k) [G]§ 63.1575(k)(1) [G]§ 63.1575(l)



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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)
							[G]§ 63.1572(d)		
88-V1	EU	63UUU-02	TOC	40 CFR Part 63, Subpart UUU	§ 63.1566(a)(1)-Table 15.1 § 63.1566(a)(1) § 63.1566(a)(1)(i) § 63.1566(a)(2) § 63.1566(a)(2)-Table 16.1 § 63.1566(a)(3) § 63.1566(a)(4) § 63.1566(a)(5) § 63.1566(b)(3) § 63.1566(b)(4) § 63.1566(b)(6) § 63.1566(b)(6)-Table 19.1 § 63.1566(c)(1) § 63.1566(c)(2) § 63.1570(a) § 63.1570(c) § 63.1570(d) § 63.1571(d) § 63.1571(d)(4) [G]§ 63.1571(e) § 63.670(c) § 63.671(a)	For each applicable process vent for a new or existing catalytic reforming unit, you must vent emissions of total organic compounds (TOC) to a flare that meets the control device requirements of §63.670. (Option 1).	§ 63.1566(b)(1) § 63.1566(b)(1)-Table 17.1 § 63.1566(b)(2) § 63.1566(b)(2)-Table 18.1.a § 63.1566(b)(2)-Table 18.1.b § 63.1566(b)(5) § 63.1566(b)(5)(i) § 63.1566(c)(1)-Table 20.1 § 63.1566(c)(1)-Table 21.1 § 63.1571(a) § 63.1571(a)(1) § 63.1572(c) [G]§ 63.1572(d)	§ 63.1566(c)(1)-Table 21.1 § 63.1570(c) § 63.1570(d) [G]§ 63.1576(a) § 63.1576(c) § 63.1576(d) § 63.1576(e) § 63.1576(f) § 63.1576(g) § 63.1576(h) § 63.1576(i)	§ 63.1566(b)(7) § 63.1566(b)(8) § 63.1570(f) § 63.1571(a) § 63.1571(d)(4) [G]§ 63.1574(a) § 63.1574(c) § 63.1574(d) § 63.1574(d)-Table 42.1 § 63.1574(d)-Table 42.2 § 63.1574(d)-Table 42.3 § 63.1575(a) § 63.1575(a)-Table 43.1 § 63.1575(a)-Table 43.2 [G]§ 63.1575(b) [G]§ 63.1575(c) [G]§ 63.1575(f) § 63.1575(g) § 63.1575(k) [G]§ 63.1575(k)(1) [G]§ 63.1575(l)
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.18 § 60.482-10a(a) § 60.482-10a(d) § 60.482-10a(m) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 60.485a(b) § 60.485a(c) § 60.485a(c)(1) § 60.485a(f)	Comply with the requirements as stated in §60.482-10a for flares.	§ 60.482-10a(e) § 60.482-1a(g) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) § 60.485a(c)(2) [G]§ 60.485a(d) [G]§ 60.485a(g) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(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)
					§ 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)				
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-10a(a) [G]§ 60.482-10a(f) [G]§ 60.482-10a(g) § 60.482-10a(h) § 60.482-10a(i) [G]§ 60.482-10a(j) [G]§ 60.482-10a(k) § 60.482-10a(m) § 60.485a(b) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)	Comply with the requirements as stated in §60.482-10a for closed-vent systems.	§ 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d) § 60.593a(d)	[G]§ 60.482-10a(l) § 60.485a(b)(2) [G]§ 60.486a(d) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) [G]§ 60.482-2a(c)(2) [G]§ 60.482-7a(e) § 60.482-8a(a) § 60.482-8a(a)(2) § 60.482-8a(b) [G]§ 60.482-8a(c) § 60.482-8a(d) § 60.482-9a(a) § 60.482-9a(b) § 60.485a(b) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2)	Comply with the requirements as stated in §60.482-8a for pressure relief devices in heavy liquid service.	§ 60.482-1a(g) § 60.482-8a(a)(1) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d) [G]§ 60.485a(e) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)

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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)
					§ 60.486a(k) § 60.592a(d) § 60.592a(e)				
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) [G]§ 60.482-2a(c)(2) [G]§ 60.482-7a(e) § 60.482-8a(a) § 60.482-8a(a)(2) § 60.482-8a(b) [G]§ 60.482-8a(c) § 60.482-8a(d) § 60.482-9a(a) § 60.482-9a(b) [G]§ 60.482-9a(c) § 60.482-9a(f) § 60.485a(b) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)	Comply with the requirements as stated in §60.482-8a for connectors in heavy liquid service.	§ 60.482-1a(g) § 60.482-8a(a)(1) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d) [G]§ 60.485a(e) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) [G]§ 60.482-2a(c)(2) [G]§ 60.482-7a(e) § 60.482-8a(a) § 60.482-8a(a)(2) § 60.482-8a(b) [G]§ 60.482-8a(c) § 60.482-8a(d)	Comply with the requirements as stated in §60.482-8a for valves in heavy liquid service.	§ 60.482-1a(g) § 60.482-8a(a)(1) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d) [G]§ 60.485a(e) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)

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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)
					§ 60.482-9a(a) § 60.482-9a(b) [G]§ 60.482-9a(c) § 60.482-9a(e) § 60.482-9a(f) § 60.485a(b) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)				
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 60.482-7a(a)(1) § 60.482-7a(b) [G]§ 60.482-7a(d) [G]§ 60.482-7a(e) [G]§ 60.482-7a(f) [G]§ 60.482-7a(g) [G]§ 60.482-7a(h) § 60.482-9a(a) § 60.482-9a(b) [G]§ 60.482-9a(c) § 60.482-9a(e) § 60.482-9a(f) § 60.485a(b) § 60.485a(c) § 60.485a(c)(1) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)	Comply with the requirements as stated in §60.482-7a for valves in gas/vapor or light liquid service.	§ 60.482-1a(f)(1) § 60.482-1a(f)(2) [G]§ 60.482-1a(f)(3) § 60.482-1a(g) § 60.482-7a(a)(1) [G]§ 60.482-7a(a)(2) [G]§ 60.482-7a(c) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) § 60.485a(c)(2) [G]§ 60.485a(d) [G]§ 60.485a(e) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(2) [G]§ 60.486a(e)(4) [G]§ 60.486a(e)(8) § 60.486a(f) § 60.486a(f)(1) § 60.486a(f)(2)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(b)(2) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(i) § 60.487a(c)(2)(ii) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)
F-	EU	60GGGA-	VOC	40 CFR Part 60,	§ 60.592a(a)	Comply with the	§ 60.482-1a(g)	§ 60.482-1a(g)	§ 60.487a(a)

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CRUDEFLE X		ALL		Subpart GGGa	§ 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 60.482-6a(a)(1) § 60.482-6a(a)(2) § 60.482-6a(b) § 60.482-6a(c) § 60.482-6a(d) § 60.482-6a(e) § 60.485a(b) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)	requirements as stated in §60.482-6a for open-ended valves and lines.	§ 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d) § 60.593a(d)	§ 60.485a(b)(2) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)
F-CRUDEFLE X	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.593a(f) § 60.482-1a(a) § 60.482-1a(g)	Open-ended valves or lines containing asphalt as defined in (§60.591a are exempt from the requirements of §60.482-6a(a) through (c).	§ 60.482-1a(g) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d)	§ 60.482-1a(g) § 60.485a(b)(2) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)
F-CRUDEFLE X	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 60.482-5a(a) [G]§ 60.482-5a(b) § 60.482-5a(c) § 60.485a(b) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k)	Comply with the requirements as stated in §60.482-5a for sampling connection systems.	§ 60.482-1a(g) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)

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					§ 60.592a(d) § 60.592a(e)				
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) [G]§ 60.482-2a(c)(2) [G]§ 60.482-7a(e) § 60.482-8a(a) § 60.482-8a(a)(2) § 60.482-8a(b) [G]§ 60.482-8a(c) § 60.482-8a(d) § 60.482-9a(a) § 60.482-9a(b) § 60.485a(b) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)	Comply with the requirements as stated in §60.482-8a for pressure relief devices in light liquid service.	§ 60.482-1a(g) § 60.482-8a(a)(1) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d) [G]§ 60.485a(e) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 60.482-4a(a) § 60.482-4a(b)(1) § 60.482-4a(b)(2) § 60.482-4a(c) § 60.482-4a(d)(1) § 60.482-4a(d)(2) § 60.482-9a(a) § 60.482-9a(b) § 60.485a(b) § 60.485a(c) § 60.485a(c)(1)	Comply with the requirements as stated in §60.482-4a for pressure relief devices in gas/vapor service.	§ 60.482-1a(g) § 60.482-4a(b)(2) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) § 60.485a(c)(2) [G]§ 60.485a(d) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) § 60.486a(e) § 60.486a(e)(1) § 60.486a(e)(10) § 60.486a(e)(3) [G]§ 60.486a(e)(4) [G]§ 60.486a(e)(8)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)

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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)
					§ 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)				
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 60.482-3a(a) [G]§ 60.482-3a(b) § 60.482-3a(c) § 60.482-3a(d) § 60.482-3a(e)(2) § 60.482-3a(f) [G]§ 60.482-3a(g) § 60.482-3a(h) [G]§ 60.482-3a(i) § 60.482-3a(j) § 60.482-9a(a) § 60.482-9a(b) § 60.485a(b) § 60.485a(c) § 60.485a(c)(1) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)	Comply with the requirements as stated in §60.482-3a for compressors.	§ 60.482-1a(g) § 60.482-3a(e)(1) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) § 60.485a(c)(2) [G]§ 60.485a(d) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(2) [G]§ 60.486a(e)(4) [G]§ 60.486a(e)(8) [G]§ 60.486a(h)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(b)(4) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(v) § 60.487a(c)(2)(vi) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 60.482-3a(a) [G]§ 60.482-3a(b) § 60.482-3a(c)	Comply with the requirements as stated in §60.482-3a for reciprocating compressors that become subject under §60.14 and §60.15.	§ 60.482-1a(g) § 60.482-3a(e)(1) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) § 60.485a(c)(2)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(b)(4) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(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)
					§ 60.482-3a(d) § 60.482-3a(e)(2) § 60.482-3a(f) [G]§ 60.482-3a(g) § 60.482-3a(h) [G]§ 60.482-3a(i) § 60.482-3a(j) § 60.482-9a(a) § 60.482-9a(b) § 60.485a(b) § 60.485a(c) § 60.485a(c)(1) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e) § 60.593a(c)		[G]§ 60.485a(d) § 60.593a(d)	[G]§ 60.486a(e)(2) [G]§ 60.486a(e)(4) [G]§ 60.486a(e)(8) [G]§ 60.486a(h)	§ 60.487a(c)(2)(v) § 60.487a(c)(2)(vi) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.593a(b)(1)	Compressors in hydrogen service are exempt from the requirements of §60.592a if an owner or operator demonstrates that a compressor is in hydrogen service.	§ 60.593a(b)(2) [G]§ 60.593a(b)(3)	None	None
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) [G]§ 60.482-2a(c)(2) [G]§ 60.482-7a(e) § 60.482-8a(a) § 60.482-8a(a)(2) § 60.482-8a(b) [G]§ 60.482-8a(c) § 60.482-8a(d)	Comply with the requirements as stated in §60.482-8a for pumps in heavy liquid service.	§ 60.482-1a(g) § 60.482-8a(a)(1) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d) [G]§ 60.485a(e) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(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)
					§ 60.482-9a(a) § 60.482-9a(b) [G]§ 60.482-9a(d) § 60.482-9a(f) § 60.485a(b) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)				
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 60.482-2a(b)(1) § 60.482-2a(b)(2) § 60.482-2a(b)(2)(ii) § 60.482-2a(c)(1) [G]§ 60.482-2a(c)(2) § 60.482-2a(d) [G]§ 60.482-2a(d)(1) § 60.482-2a(d)(2) § 60.482-2a(d)(3) [G]§ 60.482-2a(d)(6) [G]§ 60.482-2a(e) § 60.482-2a(f) [G]§ 60.482-2a(g) § 60.482-2a(h) § 60.482-9a(a) § 60.482-9a(b) [G]§ 60.482-9a(d) § 60.482-9a(f) § 60.485a(b) § 60.485a(c)	Comply with the requirements as stated in §60.482-2a for pumps in light liquid service.	§ 60.482-1a(f)(1) § 60.482-1a(f)(2) [G]§ 60.482-1a(f)(3) § 60.482-1a(g) § 60.482-2a(a)(1) § 60.482-2a(a)(2) § 60.482-2a(b)(2)(i) [G]§ 60.482-2a(d)(4) [G]§ 60.482-2a(d)(5) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) § 60.485a(c)(2) [G]§ 60.485a(d) [G]§ 60.485a(e) § 60.593a(d)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(2) [G]§ 60.486a(e)(4) § 60.486a(e)(7) [G]§ 60.486a(e)(8) § 60.486a(f) § 60.486a(f)(1) [G]§ 60.486a(h)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(b)(3) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(iii) § 60.487a(c)(2)(iv) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(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)
					§ 60.485a(c)(1) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)				
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.593a(g) § 60.482-11a(b)(2) § 60.482-11a(b)(3) § 60.482-11a(d) [G]§ 60.482-11a(e) [G]§ 60.482-11a(f)(1) § 60.482-11a(f)(2) § 60.482-11a(g) § 60.482-9a(a) § 60.482-9a(b) [G]§ 60.482-9a(c) § 60.482-9a(f) § 60.485a(b) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)	Connectors in gas/vapor or light liquid service are exempt from the requirements in §60.482-11a, provided the owner or operator complies with §60.482-8a for all connectors, not just those in heavy liquid service.	§ 60.482-11a(a) § 60.482-11a(b) § 60.482-11a(b)(1) § 60.482-11a(b)(3) § 60.482-11a(b)(3)(i) § 60.482-11a(b)(3)(ii) [G]§ 60.482-11a(b)(3)(iii) § 60.482-11a(b)(3)(iv) § 60.482-11a(c) § 60.482-9a(a) § 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d) [G]§ 60.485a(e) § 60.593a(d)	§ 60.482-11a(b)(3)(v) § 60.485a(b)(2) [G]§ 60.486a(a)(3) [G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8) § 60.486a(e)(9) § 60.486a(f) § 60.486a(f)(1)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1) § 60.487a(b)(5) § 60.487a(c) § 60.487a(c)(1) § 60.487a(c)(2) § 60.487a(c)(2)(i) § 60.487a(c)(2)(vii) § 60.487a(c)(2)(viii) § 60.487a(c)(2)(xi) § 60.487a(c)(3) § 60.487a(c)(4) § 60.487a(e)
F-CRUDEFLEX	EU	60GGGA-ALL	VOC	40 CFR Part 60, Subpart GGGa	§ 60.592a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(d) § 60.485a(b) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k) § 60.592a(d) § 60.592a(e)	Comply with the requirements as stated in §60.482-1a(d) for equipment in vacuum service.	[G]§ 60.485a(b)(1) § 60.485a(b)(2)	§ 60.485a(b)(2) § 60.486a(e) § 60.486a(e)(1) § 60.486a(e)(5)	None
F-	EU	63CCVV-	112(B)	40 CFR Part 63,	§ 63.648(a)	Comply with the specified	§ 60.482-1(f)(1)	§ 60.482-1(g)	§ 60.487(a)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
CRUDEFLEX		ALL	HAPS	Subpart CC	§ 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-2(b)(1) [G]§ 60.482-2(b)(2) § 60.482-2(c)(1) [G]§ 60.482-2(c)(2) § 60.482-2(d) [G]§ 60.482-2(d)(1) § 60.482-2(d)(2) § 60.482-2(d)(3) [G]§ 60.482-2(d)(4) [G]§ 60.482-2(d)(5) [G]§ 60.482-2(d)(6) [G]§ 60.482-2(e) § 60.482-2(f) [G]§ 60.482-2(g) § 60.482-2(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(d) § 60.482-9(f) § 60.486(k) § 63.642(b) § 63.642(n) § 63.648(a)(2) § 63.648(f)	40 CFR Part 60, Subpart VV requirements for pumps in light liquid service complying with §60.482-2.	§ 60.482-1(f)(2) [G]§ 60.482-1(f)(3) [G]§ 60.482-2(a) [G]§ 60.482-2(b)(2) [G]§ 60.482-2(d)(4) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) § 60.486(f) [G]§ 60.486(h) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(d)(6) § 63.655(i) § 63.655(i)(6)	[G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 63.642(f) § 63.655(d)(2)
F-CRUDEFLEX	EU	63CCVV-ALL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-3(a) [G]§ 60.482-3(b) § 60.482-3(c) § 60.482-3(d) § 60.482-3(e)(1) § 60.482-3(e)(2) § 60.482-3(f) § 60.482-3(g)(1)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for compressors complying with §60.482-3.	§ 60.482-3(e)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 63.642(f) § 63.655(d)(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)
					§ 60.482-3(g)(2) § 60.482-3(h) [G]§ 60.482-3(i) § 60.482-3(j) § 60.482-9(a) § 60.482-9(b) § 60.486(k) § 63.642(b) § 63.642(n) § 63.648(a)(2) § 63.648(i)			§ 63.655(d)(6) § 63.655(i) § 63.655(i)(6)	
F-CRUDEFLEX	EU	63CCVV-ALL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-5(a) [G]§ 60.482-5(b) § 60.482-5(c) § 60.486(k) § 63.642(b) § 63.642(n) § 63.648(a)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for sampling connection systems complying with §60.482-5.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 63.642(f) § 63.655(d)(2)
F-CRUDEFLEX	EU	63CCVV-ALL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-6(a)(1) § 60.482-6(a)(2) § 60.482-6(b) § 60.482-6(c) § 60.482-6(d) § 60.482-6(e) § 60.486(k) § 63.642(b) § 63.642(n) § 63.648(a)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for open-ended valves or lines complying with §60.482-6.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 63.642(f) § 63.655(d)(2)
F-CRUDEFLEX	EU	63CCVV-ALL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a)	Comply with the specified 40 CFR Part 60, Subpart	§ 60.482-1(f)(1) § 60.482-1(f)(2)	§ 60.482-1(g) [G]§ 60.486(a)	§ 60.487(a) [G]§ 60.487(b)

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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)
X					§ 60.482-1(b) § 60.482-1(g) § 60.482-7(b) § 60.482-7(d)(1) § 60.482-7(d)(2) [G]§ 60.482-7(e) [G]§ 60.482-7(f) [G]§ 60.482-7(g) [G]§ 60.482-7(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.486(k) § 63.642(b) § 63.642(n) § 63.648(a)(2)	VV requirements for valves in gas/vapor service or in light liquid service complying with §60.482-7.	[G]§ 60.482-1(f)(3) § 60.482-7(a)(1) [G]§ 60.482-7(a)(2) § 60.482-7(c)(1)(i) § 60.482-7(c)(1)(ii) § 60.482-7(c)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) [G]§ 63.648(b)	[G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i) § 63.655(i)(6)	[G]§ 60.487(c) § 60.487(d) § 60.487(e) § 63.642(f) § 63.655(d)(2)
F-CRUDEFLEX	EU	63CCVV-ALL	112(B) HAPS	40 CFR Part 63, Subpart CC	[G]§ 63.648(g) § 63.642(b) § 63.642(n)	Compressors in hydrogen service are exempt from the requirements of §63.648(a) and (c) if an owner or operator demonstrates that a compressor is in hydrogen service. §63.648(g)(1)-(2).	[G]§ 63.648(g)	§ 63.648(h) § 63.655(d)(3) § 63.655(i)	None
F-CRUDEFLEX	EU	63CCVV-ALL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for valves in heavy liquid service complying with §60.482-8.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 63.642(f) § 63.655(d)(2)

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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)
					§ 60.482-9(e) § 60.482-9(f) § 60.486(k) § 63.642(b) § 63.642(n) § 63.648(a)(2)				
F-CRUDEFLEX	EU	63CCVV-ALL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k) § 63.642(b) § 63.642(n) § 63.648(a)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for pressure relief devices in heavy liquid service complying with §60.482-8.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 63.642(f) § 63.655(d)(2)
F-CRUDEFLEX	EU	63CCVV-ALL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.486(k) § 63.642(b) § 63.642(n) § 63.648(a)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for flanges or other connectors complying with §60.482-8.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 63.642(f) § 63.655(d)(2)

**Applicable Requirements Summary**

<b>Unit Group Process ID No.</b>	<b>Unit Group Process Type</b>	<b>SOP Index No.</b>	<b>Pollutant</b>	<b>State Rule or Federal Regulation Name</b>	<b>Emission Limitation, Standard or Equipment Specification Citation</b>	<b>Textual Description (See Special Term and Condition 1.B.)</b>	<b>Monitoring And Testing Requirements</b>	<b>Recordkeeping Requirements (30 TAC § 122.144)</b>	<b>Reporting Requirements (30 TAC § 122.145)</b>
F-CRUDEFLEX	EU	63CCVV-ALL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(d) § 60.486(k) § 63.642(b) § 63.642(n)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for equipment in vacuum service.	None	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(5) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 63.642(f) § 63.655(d)(2)
F-CRUDEFLEX	EU	63CCVV-ALL	112(B) HAPS	40 CFR Part 63, Subpart CC	§ 63.648(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(d) § 60.482-9(f) § 60.486(k) § 63.642(b) § 63.642(n) § 63.648(a)(2)	Comply with the specified 40 CFR Part 60, Subpart VV requirements for pumps in heavy liquid service complying with §60.482-8.	§ 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 63.648(h) § 63.655(d)(1)(i) § 63.655(i) § 63.655(i)(6)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 63.642(f) § 63.655(d)(2)

**Additional Monitoring Requirements**

**Periodic Monitoring Summary ..... 39**



## Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: 10-H2	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-1
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per week	
Averaging Period: N/A	
Deviation Limit: Opacity shall not exceed 15% averaged over a six-minute period.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

### Periodic Monitoring Summary

<b>Unit/Group/Process Information</b>	
ID No.: 10-H3	
Control Device ID No.: N/A	Control Device Type: N/A
<b>Applicable Regulatory Requirement</b>	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-1
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
<b>Monitoring Information</b>	
Indicator: Visible Emissions	
Minimum Frequency: once per week	
Averaging Period: N/A	
Deviation Limit: Opacity shall not exceed 15% averaged over a six-minute period.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: 88-H1	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-1
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per week	
Averaging Period: N/A	
Deviation Limit: Opacity shall not exceed 15% averaged over a six-minute period.	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

**Permit Shield**

**Permit Shield ..... 43**

### 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 ID No.	Group / Inclusive Units	Regulation	Basis of Determination
F-CRUDEFLEX	N/A	40 CFR Part 60, Subpart VVa	The fugitive unit is not part of a facility that produces as an intermediate or final product one or more of the chemicals listed in 40 CFR §60.489a.

**New Source Review Authorization References**

**New Source Review Authorization References ..... 45**

**New Source Review Authorization References by Emission Unit ..... 46**

**New Source Review Authorization References**

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

<b>Prevention of Significant Deterioration (PSD) Permits</b>	
PSD Permit No.: GHGPSDTX205	Issuance Date: 09/05/2023
PSD Permit No.: PSDTX1584	Issuance Date: 09/05/2023
<b>Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.</b>	
Authorization No.: 160874	Issuance Date: 09/05/2023
<b>Permits By Rule (30 TAC Chapter 106) for the Application Area</b>	
Number: 106.263	Version No./Date: 11/01/2001

**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**
10-H2	CRUDE CHARGE HEATER (FURNACE) NO. 1	160874, GHGPSDTX205, PSDTX1584
10-H3	CRUDE CHARGE HEATER (FURNACE) NO. 2	160874, GHGPSDTX205, PSDTX1584
88-H1	CCR CHARGE AND INTERHEATERS	160874, GHGPSDTX205, PSDTX1584
88-V1	CONTINUOUS CATALYTIC REFORMER REGENERATION VENT	160874, GHGPSDTX205, PSDTX1584
F-CRUDEFLEX	CCR/CRUDE FLEX FUGITIVES	160874, GHGPSDTX205, PSDTX1584

\*\*This column may include Permit by Rule (PBR) numbers and version dates, PBR Registration numbers in brackets, Standard Permit Registration numbers, Minor NSR permit numbers, and Major NSR permit numbers.



**Appendix A**

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

## Acronym List

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

ACFM	actual cubic feet per minute
AMOC	alternate means of control
ARP	Acid Rain Program
ASTM	American Society of Testing and Materials
B/PA	Beaumont/Port Arthur (nonattainment area)
CAM	Compliance Assurance Monitoring
CD	control device
CEMS	continuous emissions monitoring system
CFR	Code of Federal Regulations
COMS	continuous opacity monitoring system
CVS	closed vent system
D/FW	Dallas/Fort Worth (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
gr/100 scf	grains per 100 standard cubic feet
HAP	hazardous air pollutant
H/G/B	Houston/Galveston/Brazoria (nonattainment area)
H <sub>2</sub> S	hydrogen sulfide
ID No.	identification number
lb/hr	pound(s) per hour
MACT	Maximum Achievable Control Technology (40 CFR Part 63)
MMBtu/hr	Million British thermal units per hour
NA	nonattainment
N/A	not applicable
NADB	National Allowance Data Base
NESHAP	National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standard (40 CFR Part 60)
NSR	New Source Review
ORIS	Office of Regulatory Information Systems
Pb	lead
PBR	Permit By Rule
PEMS	predictive emissions monitoring system
PM	particulate matter
ppmv	parts per million by volume
PRO	process unit
PSD	prevention of significant deterioration
psia	pounds per square inch absolute
SIP	state implementation plan
SO <sub>2</sub>	sulfur dioxide
TCEQ	Texas Commission on Environmental Quality
TSP	total suspended particulate
TVP	true vapor pressure
U.S.C.	United States Code
VOC	volatile organic compound

**Appendix B**

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

**Major NSR Summary Table**

Permit Numbers: 160874 and PSDTX1584					Issuance Date: September 5, 2023		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
10-H2	Crude Charge Heater No. 1	NOX	3.43	15.00	3, 5, 6, 11, 12, 13, 14, 15, 17	3, 5, 6, 11, 12, 13, 14, 15, 17	3, 5, 14, 15
		NOX – MSS	7.54				
		CO	15.99	35.01			
		CO – MSS	56.94				
		SO2	7.31	12.00			
		PM	1.70	7.45			
		PM10	1.70	7.45			
		PM2.5	1.70	7.45			
		VOC	1.23	5.39			
		NH3	0.99	4.33			
10-H3	Crude Charge Heater No. 2	NO <sub>x</sub>	3.43	15.00	3, 5, 6, 11, 12, 13, 14, 15, 17	3, 5, 6, 11, 12, 13, 14, 15, 17	3, 5, 14, 15
		NO <sub>x</sub> – MSS	7.54				
		CO	15.99	35.01			
		CO – MSS	59.94				
		SO <sub>2</sub>	7.31	12.00			
		PM	1.70	7.45			

**Major NSR Summary Table**

Permit Numbers: 160874 and PSDTX1584					Issuance Date: September 5, 2023		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
		PM <sub>10</sub>	1.70	7.45			
		PM <sub>2.5</sub>	1.70	7.45			
		VOC	1.23	5.39			
		NH <sub>3</sub>	0.99	4.33			
88-H1.1, 1.2, 1.3	CCR Charge and Interheaters	NOX	5.75	25.17	3, 5, 6, 11, 12, 13, 14, 15, 17	3, 5, 6, 11, 12, 13, 14, 15, 17	3, 5, 14, 15
		NOX – MSS	8.62				
		CO	26.82	58.73			
		CO – MSS	100.56				
		SO <sub>2</sub>	12.26	20.13			
		PM	2.85	12.50			
		PM <sub>10</sub>	2.85	12.50			
		PM <sub>2.5</sub>	2.85	12.50			
		VOC	2.07	9.05			
		NH <sub>3</sub>	1.66	7.26			
88-V1	CCR Vent	Cl <sub>2</sub>	0.02	0.10	3, 5, 7	3, 5, 7	3, 5
		NO <sub>x</sub>	0.05	0.21			

**Major NSR Summary Table**

Permit Numbers: 160874 and PSDTX1584					Issuance Date: September 5, 2023		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
		CO	0.58	2.56			
		SO <sub>2</sub>	0.13	0.59			
		VOC	0.20	0.88			
		HCl	0.11	0.47			
F-CrudeFlex	CCR/Crude Flex Fugitives (5)	VOC	17.12	74.97	3, 5, 9, 10	3, 5, 9, 10	3, 5, 9
		H <sub>2</sub> S	0.13	0.59			
		NH <sub>3</sub>	0.09	0.39			
MSS	Planned MSS Emissions	NO <sub>x</sub>	56.79	0.17	3, 4, 5, 17, 18, 19	3, 4, 5, 16, 17, 18, 19, 20	3, 4, 5
		CO	410.21	1.10			
		SO <sub>2</sub>	0.69	<0.01			
		PM	0.21	<0.01			
		PM <sub>10</sub>	0.10	<0.01			
		PM <sub>2.5</sub>	0.01	<0.01			
		VOC	1064.56	7.30			
F-SUMPCCR	CCR Sump	VOC	<0.01	0.02	3, 4, 5, 8	3, 4, 5, 8	3, 4, 5

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3)
  - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
  - NO<sub>x</sub> - total oxides of nitrogen
  - SO<sub>2</sub> - sulfur dioxide
  - PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
  - PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
  - PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
  - CO - carbon monoxide
  - NH<sub>3</sub> - ammonia
  - H<sub>2</sub>S - hydrogen sulfide
  - Cl<sub>2</sub> - chlorine
  - HCl - hydrochloric acid
- (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.

**Major NSR Summary Table**

Permit Number: GHGPSDTX205				Issuance Date: September 5, 2023		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
10-H2	Crude Charge Heater No. 1	CO <sub>2</sub> (5)	130,064	24	23, 24, 25, 26, 27	24
		CH <sub>4</sub> (5)	6.61			
		N <sub>2</sub> O (5)	1.32			
		CO <sub>2</sub> e	130,624			
10-H3	Crude Charge Heater No. 2	CO <sub>2</sub> (5)	130,064	24	23, 24, 25, 26, 27	24
		CH <sub>4</sub> (5)	6.61			
		N <sub>2</sub> O (5)	1.32			
		CO <sub>2</sub> e	130,624			
88-H1.1, 1.2, 1.3	CCR Charge and Interheaters	CO <sub>2</sub> (5)	218,198	24	23, 24, 25, 26, 27	24
		CH <sub>4</sub> (5)	11.09			
		N <sub>2</sub> O (5)	2.22			
		CO <sub>2</sub> e	219,136			
88-V1	CCR Vent	CO <sub>2</sub> (5)	2,935.01	24	23, 24, 25, 26, 27	24
		CO <sub>2</sub> e	2,935.01			
F-CrudeFlex	CCR/Crude Flex Fugitives (5)	CH <sub>4</sub> (5)	42.95	24	23, 24, 25, 26, 27	24
		CO <sub>2</sub> e	1,073.74			
MSS	Planned MSS Emissions	CO <sub>2</sub> (5)	103.34	24	23, 24, 25, 26, 27	24
		CH <sub>4</sub> (5)	0.31			
		N <sub>2</sub> O (5)	<0.01			
		CO <sub>2</sub> e	111.45			



- (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)

CO <sub>2</sub>	-	carbon dioxide
CH <sub>4</sub>	-	methane
N <sub>2</sub> O	-	nitrous oxide
CO <sub>2</sub> e	-	carbon dioxide equivalents based on the following Global Warming Potentials (1/2015):
		CO <sub>2</sub> (1), N <sub>2</sub> O (298), CH <sub>4</sub> (25), SF <sub>6</sub> (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.



## Texas Commission on Environmental Quality Air Quality Permit

*A Permit Is Hereby Issued To*  
**Phillips 66 Company**  
*Authorizing the Construction and Operation of*  
**Borger Refinery**  
*Located at Borger, Hutchinson County, Texas*  
*Latitude 35.699444 Longitude -101.359722*

Permits: 160874, GHGPSDTX205 and PSDTX1584

Amendment Date: September 5, 2023

Expiration Date: January 21, 2031

  
\_\_\_\_\_  
For the Commission

- Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)]<sup>1</sup>
- 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]
- Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
- Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
- Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
- Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
- Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and

operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction 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)]<sup>1</sup>
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.<sup>1</sup>

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

## Common Acronyms in Air Permits

°C = Temperature in degrees Celsius	GLC <sub>max</sub> = maximum (predicted) ground-level concentration
°F = Temperature in degrees Fahrenheit	gpm = gallon per minute
°K = Temperature in degrees Kelvin	gr/1000scf = grain per 1000 standard cubic feet
µg = microgram	gr/dscf = grain per dry standard cubic feet
µg/m <sup>3</sup> = microgram per cubic meter	H <sub>2</sub> CO = formaldehyde
acfm = actual cubic feet per minute	H <sub>2</sub> S = hydrogen sulfide
AMOC = alternate means of control	H <sub>2</sub> SO <sub>4</sub> = sulfuric acid
AOS = alternative operating scenario	HAP = hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
AP-42 = Air Pollutant Emission Factors, 5th edition	HC = hydrocarbons
APD = Air Permits Division	HCl = hydrochloric acid, hydrogen chloride
API = American Petroleum Institute	Hg = mercury
APWL = air pollutant watch list	HGB = Houston/Galveston/Brazoria
BPA = Beaumont/ Port Arthur	hp = horsepower
BACT = best available control technology	hr = hour
BAE = baseline actual emissions	IFR = internal floating roof tank
bbl = barrel	in H <sub>2</sub> O = inches of water
bbl/day = barrel per day	in Hg = inches of mercury
bhp = brake horsepower	IR = infrared
BMP = best management practices	ISC3 = Industrial Source Complex, a dispersion model
Btu = British thermal unit	ISCST3 = Industrial Source Complex Short-Term, a dispersion model
Btu/scf = British thermal unit per standard cubic foot or feet	K = Kelvin; extension of the degree Celsius scaled-down to absolute zero
CAA = Clean Air Act	LACT = lease automatic custody transfer
CAM = compliance-assurance monitoring	LAER = lowest achievable emission rate
CEMS = continuous emissions monitoring systems	lb = pound
cfm = cubic feet (per) minute	lb/day = pound per day
CFR = Code of Federal Regulations	lb/hr = pound per hour
CN = customer ID number	lb/MMBtu = pound per million British thermal units
CNG = compressed natural gas	LDAR = Leak Detection and Repair (Requirements)
CO = carbon monoxide	LNG = liquefied natural gas
COMS = continuous opacity monitoring system	LPG = liquefied petroleum gas
CPMS = continuous parametric monitoring system	LT/D = long ton per day
DFW = Dallas/ Fort Worth (Metroplex)	m = meter
DE = destruction efficiency	m <sup>3</sup> = cubic meter
DRE = destruction and removal efficiency	m/sec = meters per second
dscf = dry standard cubic foot or feet	MACT = maximum achievable control technology
dscfm = dry standard cubic foot or feet per minute	MAERT = Maximum Allowable Emission Rate Table
ED = (TCEQ) Executive Director	MERA = Modeling and Effects Review Applicability
EF = emissions factor	mg = milligram
EFR = external floating roof tank	mg/g = milligram per gram
EGU = electric generating unit	mL = milliliter
EI = Emissions Inventory	MMBtu = million British thermal units
ELP = El Paso	MMBtu/hr = million British thermal units per hour
EPA = (United States) Environmental Protection Agency	MSDS = material safety data sheet
EPN = emission point number	MSS = maintenance, startup, and shutdown
ESL = effects screening level	MW = megawatt
ESP = electrostatic precipitator	NAAQS = National Ambient Air Quality Standards
FCAA = Federal Clean Air Act	NESHAP = National Emission Standards for Hazardous Air Pollutants
FCCU = fluid catalytic cracking unit	NGL = natural gas liquids
FID = flame ionization detector	NNSR = nonattainment new source review
FIN = facility identification number	NO <sub>x</sub> = total oxides of nitrogen
ft = foot or feet	NSPS = New Source Performance Standards
ft/sec = foot or feet per second	
g = gram	
gal/wk = gallon per week	
gal/yr = gallon per year	
GLC = ground level concentration	

PAL = plant-wide applicability limit  
PBR = Permit(s) by Rule  
PCP = pollution control project  
PEMS = predictive emission monitoring system  
PID = photo ionization detector  
PM = periodic monitoring  
PM = total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented  
PM<sub>2.5</sub> = particulate matter equal to or less than 2.5 microns in diameter  
PM<sub>10</sub> = total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented  
POC = products of combustion  
ppb = parts per billion  
ppm = parts per million  
ppmv = parts per million (by) volume  
psia = pounds (per) square inch, absolute  
psig = pounds (per) square inch, gage  
PTE = potential to emit  
RA = relative accuracy  
RATA = relative accuracy test audit  
RM = reference method  
RVP = Reid vapor pressure  
scf = standard cubic foot or feet  
scfm = standard cubic foot or feet (per) minute  
SCR = selective catalytic reduction  
SIL = significant impact levels  
SNCR = selective non-catalytic reduction  
SO<sub>2</sub> = sulfur dioxide  
SOCMI = synthetic organic chemical manufacturing industry  
SRU = sulfur recovery unit  
TAC = Texas Administrative Code  
TCAA = Texas Clean Air Act  
TCEQ = Texas Commission on Environmental Quality  
TD = Toxicology Division  
TLV = threshold limit value  
TMDL = total maximum daily load  
tpd = tons per day  
tpy = tons per year  
TVP = true vapor pressure  
VOC = volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
VRU = vapor recovery unit or system

## Special Conditions

Permit Numbers 160874, PSDTX1584, and GHGPSDTX205

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT), and those sources are limited to the emission limits and other conditions specified in that table.
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 percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to 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.

### Federal Applicability

3. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60):
  - A. Subpart A, General Provisions.
  - B. Subpart Ja, Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007.
  - C. Subpart GGG, Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after January 4, 1983, and on or Before November 7, 2006.
  - D. Subpart GGGa, Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After November 7, 2006.
  - E. Subpart QQQ, VOC Emissions from Petroleum Refinery Wastewater Systems.
4. These facilities shall comply with all applicable requirements of EPA regulations on National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61:
  - A. Subpart A, General Provisions.
  - B. Subpart FF, Benzene Waste Operations.
5. These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63:
  - A. Subpart A, General Provisions.
  - B. Subpart CC, Hazardous Air Pollutants from Petroleum Refineries.
  - C. Subpart UUU, Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units.
  - D. Subpart DDDDD, Hazardous Air Pollutants for Industrial for Institutional, Commercial, and Industrial Boilers and Process Heaters.

## Heaters

6. The following requirements shall apply to the crude charge heaters (EPN 10-H2 and EPN 10-H3) and the CCR Charge and Interheaters (EPN 88-H1): **(09/23)**

- A. Except where provided otherwise in Paragraph E of this Special Condition, emissions of NO<sub>x</sub>, CO, and NH<sub>3</sub> from each heater shall not exceed the following values.

Pollutant	Emission Limit	Averaging Period
NO <sub>x</sub>	0.015 lb/MMBtu	365-Day Rolling
NH <sub>3</sub>	10 ppmvd @ 3%O <sub>2</sub>	365-Day Rolling
CO	50 ppmvd @ 3%O <sub>2</sub>	365-Day Rolling

- B. The limits above do not apply during the initial shakedown period, which is not to exceed 180 days after initial startup.
- C. Compliance with the NO<sub>x</sub> and CO emission limits of paragraph A shall be demonstrated through use of a continuous emission monitoring system (CEMS).
- D. The NH<sub>3</sub> concentration in the exhaust stack shall be tested or calculated according to one of the methods listed below and shall be tested or calculated according to frequency listed below. Testing for NH<sub>3</sub> slip is only required on days when the SCR unit is in operation.

- (1) Install, calibrate, maintain, and operate, as specified under Special Condition No.13, a CEMS to measure and record the concentration of NH<sub>3</sub>. The NH<sub>3</sub> concentration shall be corrected and reported in accordance with paragraph A.
- (2) Use a sorbent or stain tube device specific for NH<sub>3</sub> measurement in the 5 to 10 parts per million (ppm) range. The frequency of sorbent/stain tube testing shall be performed daily for the first 60 days of operation, after which the frequency may be reduced to weekly testing if operating procedures have been developed to prevent excess amounts of NH<sub>3</sub> from being introduced in the SCR units and when operation of the SCR units have been proven successful with regard to controlling NH<sub>3</sub> slip. Daily sorbent or stain tube testing shall resume when the catalyst is within 30 days of its useful life expectancy. These results shall be recorded and used to determine compliance with this Special Condition.

If sorbent or stain tube testing indicates an NH<sub>3</sub> slip concentration which exceed 5 ppm at any time, the permit holder shall begin NH<sub>3</sub> testing by either the Phenol-Nitroprusside Method, the Indophenol Method, or the EPA Conditional Test Method (CTM) 27 on a quarterly basis, in addition to the weekly sorbent or stain tube testing. The quarterly testing shall continue until such time as the SCR unit catalyst is replaced; or if the quarterly testing indicates NH<sub>3</sub> slip is 4 ppm or less, the Nitroprusside/Indophenol/CTM 27 tests may be suspended until sorbent or stain tube testing again indicate 5 ppm NH<sub>3</sub> slip or greater. These results shall be recorded and used to determine compliance with this Special Condition.

- (3) Install, calibrate, maintain, and operate, as specified under Special Condition No. 13, a second NO<sub>x</sub> CEMS upstream of the control device (in addition to the NO<sub>x</sub> CEMS required under Special Condition No. 13. Perform the measurements and calculations associated with the mass balance method specified in 30 TAC § 117.8130(1), using NO<sub>x</sub> CEMS data to determine the NO<sub>x</sub> concentration differential across the control device.

- (4) Install and operate a dual stream system of NO<sub>x</sub> CEMS at the exit of the SCR. One of the exhaust streams would be routed, in an unconverted state, to one NO<sub>x</sub> CEMS and the other exhaust stream would be routed through a NH<sub>3</sub> converter to convert NH<sub>3</sub> to NO<sub>x</sub> and then to a second NO<sub>x</sub> CEMS. The NH<sub>3</sub> slip concentration shall be calculated according to the method specified in 30 TAC § 117.8130(2). These results shall be recorded and used to determine compliance with this Special Condition.
- (5) Any other method used for measuring NH<sub>3</sub> slip shall require prior approval from the TCEQ Regional Director.
- E. During non-routine operations for a heater, the requirements of Special Condition 6.A shall not apply. Records of heater startup, shutdown, and low firing events shall specify the time and duration of the event.
- F. The heaters shall be fired with either sweet natural gas and/or refinery fuel gas containing no more than 0.10 grain total sulfur expressed as hydrogen sulfide (H<sub>2</sub>S) per dry standard cubic feet (dscf) (equivalent to 162 ppmv) on a rolling three-hour basis and no more than 60 ppmv on a rolling 365-day basis.

#### CCR Vent Scrubber

- 7. The following requirements shall apply to the CCR Vent Scrubber (EPN 88-V1):
  - A. The CCR Vent Scrubber (EPN 88-V1) shall be designed to control hydrogen chloride (HCl) emissions to an outlet concentration of 10 ppmvd at 3% O<sub>2</sub> or an overall control efficiency of 99 percent, whichever is less stringent.
  - B. The minimum liquid flow to the absorber shall be 132 gpm. The circulation rate shall be monitored and recorded at least once an hour. After the initial stack test, the circulation rate shall be maintained at not less than the value recorded during the performance test.

The flow 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 2 percent of span or 5 percent of the design value. **(09/23)**

Quality assured (or valid) data must be generated when the CCR Vent Scrubber is operating except during the performance of a daily zero check. Loss of valid data due to periods of monitor breakdown, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in hours) that the CCR Vent Scrubber operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

- C. The scrubbing solution shall be maintained at or above a pH of 7.5. After the initial stack test, the pH shall be maintained at not less than the value recorded during the performance test. The pH shall be continuously analyzed and recorded at least once a minute. Each monitoring device shall be cleaned with an automatic cleaning system, or cleaned weekly using hydraulic, chemical, or mechanical cleaning. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, or at least weekly, whichever is more frequent, and shall be accurate to within ± 0.5 pH unit.



Quality assured (or valid) data must be generated when the CCR Vent Scrubber 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 the time (in hours) that the CCR Vent Scrubber operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgement and the methods used recorded.

### Carbon Adsorption

8. The CCR sump shall vent through a carbon adsorption system (CAS) consisting of at least two activated carbon canisters that are connected in series.
  - A. The CAS (EPN F-SUMPCCR) shall be sampled daily to determine breakthrough of volatile organic compounds (VOC). The sampling point shall be at the outlet of the initial canister but before the inlet to the second or final polishing canister. Sampling shall be done while wastewater is being routed to the CCR sump.
  - B. The VOC sampling and analysis shall be performed using an instrument with a flame ionization detector (FID), or a TCEQ-approved alternative detector. The instrument/FID must meet all requirements specified in Section 8.1 of EPA Method 21 (40 CFR 60, Appendix A). Sampling and analysis for VOC breakthrough shall be performed as follows:
    - (1) Immediately prior to performing sampling, the instrument/FID shall be calibrated with zero and span calibration gas mixtures. Zero gas shall be certified to contain less than 0.1 ppmv total hydrocarbons. Span calibration gas shall be methane or isobutylene at a concentration within  $\pm 10$  percent of 100 ppmv, and certified by the manufacturer to be  $\pm 2$  percent accurate. Calibration error for the zero and span calibration gas checks must be less than  $\pm 5$  percent of the span calibration gas value before sampling may be conducted. As an alternative, other VOC species may be used as a span calibration gas if Method 21 is followed and the appropriate calibration correction factor is used.
    - (2) The sampling point shall be at the outlet of the initial canister but before the inlet to the second or final polishing canister. Sample ports or connections must be designed such that air leakage into the sample port does not occur during sampling.
    - (3) During sampling, data recording shall not begin until after two times the instrument response time. The VOC concentration shall be monitored for at least 5 minutes, recording 1-minute averages, while wastewater is being routed to the CCR sump.
  - C. Breakthrough shall be defined as the highest 1 minute average measured VOC concentration at or exceeding 100 ppmv. 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 24 hours of the detected breakthrough. 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.
  - 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).
  - (3) Corrective action taken including the time and date of that action.
- E. Alternate monitoring or sampling requirements that are equivalent or better may be approved by the TCEQ Regional Manager. Alternate requirements must be approved in writing before they can be used for compliance purposes.

## Fugitives

### ***Piping, Valves, Connectors, Pumps, Agitators, and Compressors – 28VHP***

9. The following requirements apply to piping, valves, connectors, pumps, agitators, and compressors containing or in contact with fluids that could reasonably be expected to contain greater than or equal to 10 weight percent volatile organic compounds (VOC) at any time.
- A. The requirements of paragraphs 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:
- piping and instrumentation diagram (PID);
  - a written or electronic database or electronic file;
  - color coding;
  - a form of weatherproof identification; or
  - 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 Paragraph 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.

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 for hot work 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 within 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 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. 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. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

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. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

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.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with automatic seal failure detection and alarm system need not be monitored. These seal systems 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.
- H. Damaged or leaking valves or connectors 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. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 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 and a record of the attempt shall be maintained.
- I. 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 within 15 days of the detection of the leak. 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 shut down as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I) or 500 pounds, whichever is greater, the TCEQ Regional Manager and any local programs shall be notified and the TCEQ Executive Director may require early unit shut down 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.
- J. 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 and 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.
- K. Alternative monitoring frequency schedules of 30 TAC 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F and G of this condition.
- L. 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.

***Piping, Valves, Pumps, and Compressors in Contact with Ammonia – 28AVO***

10. Piping, valves, pumps, and compressors in NH<sub>3</sub> service – Audio, olfactory, and visual checks for NH<sub>3</sub> leaks within the NH<sub>3</sub> handling system for the SCR Units represented in the initial permit application dated April 3, 2020

Except as may be provided for in the Special Conditions of this permit, the following requirements apply to the above-referenced equipment:

- A. Audio, olfactory, and visual checks for leaks within the operating area shall be made once per shift.
- B. Immediately, but no later than one hour upon detection of a leak, plant personnel shall take at least one of the following actions:
  - (1) Isolate the leak.
  - (2) Commence repair or replacement of the leaking component.
  - (3) Use a leak collection/containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible.

Date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to leaks. These records shall be made available to representatives of the Texas Commission on Environmental Quality (TCEQ) upon request.

**Continuous Demonstration of Compliance**

- 11. The permit holder shall install and operate a fuel flow meter to measure the gas fuel usage for each device listed in Special Condition No. 13. The monitored data shall be reduced to an hourly average flow rate at least once each day, 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.
- 12. The permit holder shall install and operate an analyzer which continuously monitors the heat content of fuel supplied to each heater. For sources which receive fuel from a common fuel gas header, a single analyzer may be installed in the fuel gas header. EPA Alternative Test Method 131 can be used for the daily calibrations and quarterly cylinder gas audits for gas chromatographs and/or mass spectrometers in fuel gas service. **(09/23)**
- 13. The permit holder shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) as follows for equipment covered by this permit. Methods specified in Special Condition No. 6 may be used as alternatives to installation of an NH<sub>3</sub> CEMS. **(09/23)**

EPN	Source Name	CEMS required for pollutant (indicated by X)			
		O <sub>2</sub>	CO	NO <sub>x</sub>	NH <sub>3</sub>
10-H2	Crude Charge Heater No. 1	X	X	X	See SC 6D
10-H3	Crude Charge Heater No. 2	X	X	X	See SC 6D
88-H1	CCR Charge and Interheaters	X	X	X	See SC 6D

14. Each CEMS required under this permit shall satisfy the following requirements
- 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 TCEQ Office of Air, Air Permits Division for requirements to be met.
  - B. Subparagraph (1) below applies to sources subject to the quality-assurance requirements of 40 CFR Part 60, Appendix F; section 2 applies to all other sources:
    - (1) 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, Section 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.
    - (2) 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 the applicable Performance Specification Nos. 1 through 9, 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.
 

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

All CGA exceedances of +15 percent accuracy indicate that the CEMS is out of control.
  - C. The monitoring data shall be reduced to hourly average concentrations at least once every day, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of ppmvd, lb/MMBtu, and/or lb/hr, as applicable at least once every week as follows:
    - (1) The measured 1-hr average concentration (in units of ppmvd) from the CEMS shall be converted to a dry basis and corrected to the reference oxygen concentration.
    - (2) The converted concentration, corrected for oxygen, shall be converted to an emissions factor (in units of lb/MMBtu) by using an appropriate F-factor determined as specified in EPA Method 19, Equation 19-13, determined using the measured hydrogen content of the fuel gas.

- (3) The emission rate (in units of lb/hr) shall be determined by multiplying the emission factor by the fuel flow rate and fuel heat content measured as required under Special Condition Nos. 11 and 12.
  - (4) In case the permit holder elects to monitor stack exhaust flow as provided for in Special Condition No. 11, the emission rate (in units of lb/hr) shall be determined by multiplying the measured concentration (converted and corrected as needed) by the exhaust flow rate; and the emission factor (in units of lb/MMBtu) shall be determined by dividing the emission rate by the monitored fuel flow rate, using fuel flow rate and fuel heat content data measured as required under Special Condition Nos. 11 and 12.
- D. All monitoring data and quality-assurance data shall be maintained by the source. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.
- 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. If a temporary CEMS replacement analyzer is used in-place of a permanent non-redundant CEMS analyzer, the 30-day notification requirement is waived for the temporary CEMS and reinstallation of the rebuilt CEMS (in the case of a rebuild of an existing CEMS), and notification shall be made as soon as practicable. The temporary CEMS analyzer shall meet the applicable requirements of the permanent non-redundant CEMS analyzer which it replaced and shall use the same probe and interface.

Quality-assured (or valid) data must be generated when the source generating emissions 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 the time (in minutes) that the source generating emissions 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 Manager.

#### **Initial Determination of Compliance**

15. The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the Crude Charge Heater No. 1 (EPN 10-H2), Crude Charge Heater No. 2 (EPN 10-H3), and the CCR Charge and Interheaters (EPN 88-H1) to demonstrate compliance with the MAERT and Special Condition No. 6. 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 Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and the EPA Reference Methods.

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 Regional Director.

- A. The appropriate TCEQ 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) Procedure/parameters to be used to determine worst case emissions.

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 the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

- B. Air contaminants emitted from the Crude Charge Heater No. 1 (EPN 10-H2), Crude Charge Heater No. 2 (EPN 10-H3), and the CCR Charge and Interheaters (EPN 88-H1) to demonstrate compliance with the MAERT and Special Condition No. 6 to be tested for include (but are not limited to) CO, NO<sub>x</sub>, SO<sub>2</sub>, and NH<sub>3</sub>.
- C. Sampling shall occur within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities (or increase in production, as appropriate) and at such other times (identify the need for any periodic sampling here) as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.
- D. The facility being sampled shall operate at the maximum operating rate during stack emission testing. These conditions/parameters and any other primary operating parameters that affect 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 Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.
- During subsequent operations, if the operating rate is greater than that recorded during the test period, stack sampling shall be performed at the new operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region.
- E. Copies of the final sampling report shall be forwarded to the offices 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 Procedures Manual. The reports shall be distributed as follows:
- One copy to the appropriate TCEQ Regional Office.
  - One copy to each local air pollution control program.
- F. Sampling ports and platform(s) shall be incorporated into the design of (source stack and EPN) according to the specifications set forth in the attachment entitled "Chapter 2, Guidelines for Stack Sampling Facilities" of the Texas Commission on Environmental Quality



(TCEQ) Sampling Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director.

### **Maintenance, Startup, and Shutdown**

16. This permit authorizes the emissions for the planned maintenance, startup, and shutdown (MSS) activities summarized in the MSS Activity Summary (Attachment C) attached to this permit.

Additionally, this permit authorizes emissions from the following temporary facilities used to support planned MSS activities at permanent site facilities: frac tanks, containers, vacuum trucks, and control devices identified in Special Condition No. 22 and 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.

Attachment A identifies the inherently low emitting MSS activities that may be performed at the plant. 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 process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- 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;
- 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.

17. Process units and facilities, with the exception of those identified in Special Condition Nos. 19, 20, and Attachment A shall be depressurized, emptied, degassed, and placed in service in accordance with the following requirements.

- 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 or closed liquid recovery system 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 facilities to be degassed shall not be vented directly to atmosphere, except as necessary to establish isolation of the work area or to monitor VOC concentration following controlled depressurization. The venting shall be minimized to the maximum extent practicable and actions taken 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.

The following requirements do not apply to fugitive components, pumps, compressors and vessels with fixed bed catalysts.

- (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 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 (process flow diagrams [PFDs] or piping and instrumentation diagrams [P&IDs] may be used to demonstrate compliance with the requirement). 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. 18. 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. If there is not a connection (such as a sample, vent, or drain valve) available from which a representative sample may be obtained, a sample may be taken upon entry into the system after degassing has been completed. The sample shall be taken from inside the vessel so as to minimize any air or dilution from the entry point. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. Documented site procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.

- 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 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

All instances of venting directly to atmosphere per Special Condition 17.E 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.

18. Air contaminant concentration shall be measured using an instrument/detector meeting one set of requirements specified below.

- 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 (RF) 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 (RF) shall be recorded. If the RF of the VOC (or mixture of VOCs) to be monitored is greater than 2.0, the VOC concentration shall be determined as follows:  
$$\text{VOC Concentration} = \text{Concentration as read from the instrument} * \text{RF}$$

In no case should a calibration gas be used such that the RF of the VOC (or mixture of VOCs) to be monitored is greater than 5.0.
  - (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. As an alternative the VOC concentration may be monitored over a five-minute period with an instrument designed to continuously measure concentration and record the highest concentration read. The highest measured VOC concentration shall be recorded and 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 as defined in (3) is less than 80 percent of the range of the tube and 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.
- (1) The detector shall be calibrated within 30 days of use with a certified pentane gas standard at 25% of the lower explosive limit (LEL) for pentane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.
  - (2) A functionality test shall be performed on each detector within 24 hours of use with a certified gas standard at 25% of the LEL for pentane. The LEL monitor shall read no lower than 90% 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% of the LEL for pentane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for pentane.

19. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:
- A. Prior to initial use, identify any liquid in the truck. Record the liquid level and document the VOC partial pressure. After each liquid transfer, identify the liquid, the volume transferred, and its VOC partial pressure.
  - B. If vacuum pumps or blowers are operated when liquid is in or being transferred to the truck, the following requirements apply:
    - (1) If the VOC partial pressure of the liquid in or being transferred to the truck is greater than 0.50 psi at 95°F, the vacuum/blower exhaust shall be routed to a control device or a controlled recovery system.
    - (2) Equip fill line intake with a "duckbill" or equivalent attachment if the hose end cannot be submerged in the liquid being collected.
    - (3) A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.

- (a) 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.
    - (b) 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 shall be recorded, measured using an instrument meeting the requirements of Special Condition No17.A or 17.B.
  - C. Record 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 paragraphs A through D of this Special Condition do not apply.
20. The following requirements apply to frac, or temporary, tanks and vessels used in support of MSS activities.
- 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, sampled, gauged, or when removing material.
  - B. These tanks/vessels must be covered and equipped with fill pipes that discharge within 6 inches of the tank/vessel bottom.
  - C. These requirements do not apply to vessels storing less than 450 gallons of liquid that are closed such that the vessel does not vent to atmosphere except when filling, sampling, gauging, or when removing material.
  - 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. This record must be updated by the last day of the month following. 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.
21. Additional occurrences of MSS activities authorized by this permit may be authorized under permit by rule only if conducted in compliance with this permit's procedures, emission controls, monitoring, and recordkeeping requirements applicable to the activity.
22. 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.

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. The flares (EPNs 66FL1, 66FL2, 66FL3, and 66FL12) operated as required in Special Condition No. 2 in Flexible Permit 9868A.

### **Greenhouse Gas Emissions**

23. 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 emission increase of 75,000 tpy or more CO<sub>2e</sub> and PSD review is triggered for criteria pollutants, greenhouse gas emissions are subject to PSD review.
24. Monitoring, quality assurance/quality control requirements, emission calculation methodologies, record keeping, and reporting requirements related to Greenhouse Gas (GHG) emissions shall adhere to the applicable requirements in 40 CFR Part 98 and in this permit.
25. Permittee shall calculate the CO<sub>2e</sub> emissions on a 12-month rolling basis, based on the procedures and Global Warming Potentials (GWP) contained in Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1.
26. Records of emissions of GHG, and how they were determined, in compliance with Special Condition Nos. 23, 24, and 25 must be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and must be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction.

### **Recordkeeping**

27. The records required by these special conditions shall be maintained in either hard copy or electronic format and shall be maintained for at least five years rather than the two-year period

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Permit Numbers 160874, PSDTX1584, and GHGPSDTX205  
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specified in General Condition No. 7. These records shall be made immediately available at the request of personnel from the TCEQ or any air pollution control agency with jurisdiction.

Date: September 5, 2023

**Permit Numbers 160874, PSDTX1584, and GHGPSDTX205**

Attachment A  
Inherently Low Emitting Activities

Activity	Emissions				
	VOC	NO <sub>x</sub>	CO	PM	SO <sub>2</sub>
Replacement of analyzer filters/screens	X				
Replacement of process filters/screens	X				
Calibration of CEMS analyzers	X	X	X		
Calibration/maintenance of process instrumentation	X				
Catalyst changeout				X	
Spare pump startup	X				
Carbon canister replacement	X				
Seal inspections and other tank inspection activities	X				
Water washing empty drums, totes, and misc. small equipment	X				
Sample Purge and Discharge from Analyzers/Area Monitors	X				
Sample system purging	X				
Acid and Caustic washing	X				
Blowdowns of natural gas, liquid hydrocarbons, compressed air, and steam lines	X				
Combustion shutoff devices	X				
Insulation addition or removal	X				
Pneumatic starts on reciprocating engines, turbines, or compressors	X				
Machine blowdowns	X				
Drain equipment to controlled sewer hubs	X				
Sampling	X				
Clearing/draining of process equipment (other than vacuum trucks and frac tanks)	X				
Ultrasonic cleaning	X				

Date: January 21, 2021



**Permit Numbers 160874, PSDTX1584, and GHGPSDTX205**

Attachment B

Routine Maintenance Activities

Piping/valve maintenance/repair  
Filter/meter maintenance and replacement  
Pipeline pigging  
Compressor maintenance  
Pump maintenance  
Heat Exchanger maintenance

Date: January 21, 2021

**Permit Numbers 160874, PSDTX1584, and GHGPSDTX205**

Attachment C

MSS Activity Summary

<b>Facilities</b>	<b>Emissions Activity</b>	<b>EPN</b>
CCR and Naphtha Splitter Units	Turn around clearing (controlled)	CCR-MSS_C NS-MSS_C
CCR and Naphtha Splitter Units	Turn around clearing (uncontrolled)	CCR-MSS_U NS-MSS_U
Routine maintenance activities	See Attachment B	MISC-MSS
Inherently low emitting activities	See Attachment A	MISC-MSS

Date: January 21, 2021

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 160874 and PSDTX1584

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)
10-H2	Crude Charge Heater No. 1	NO <sub>x</sub>	3.43	15.00
		NO <sub>x</sub> – MSS	7.54	
		CO	15.99	35.01
		CO – MSS	59.94	
		SO <sub>2</sub>	7.31	12.00
		PM	1.70	7.45
		PM <sub>10</sub>	1.70	7.45
		PM <sub>2.5</sub>	1.70	7.45
		VOC	1.23	5.39
		NH <sub>3</sub>	0.99	4.33
10-H3	Crude Charge Heater No. 2	NO <sub>x</sub>	3.43	15.00
		NO <sub>x</sub> – MSS	7.54	
		CO	15.99	35.01
		CO – MSS	59.94	
		SO <sub>2</sub>	7.31	12.00
		PM	1.70	7.45
		PM <sub>10</sub>	1.70	7.45
		PM <sub>2.5</sub>	1.70	7.45
		VOC	1.23	5.39
		NH <sub>3</sub>	0.99	4.33
88-H1.1, 1.2, 1.3	CCR Charge and Interheaters	NO <sub>x</sub>	5.75	25.17
		NO <sub>x</sub> – MSS	8.62	
		CO	26.82	58.73
		CO – MSS	100.56	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		SO <sub>2</sub>	12.26	20.13
		PM	2.85	12.50
		PM <sub>10</sub>	2.85	12.50
		PM <sub>2.5</sub>	2.85	12.50
		VOC	2.07	9.05
		NH <sub>3</sub>	1.66	7.26
88-V1	CCR Vent	Cl <sub>2</sub>	0.02	0.10
		NO <sub>x</sub>	0.05	0.21
		CO	0.58	2.56
		SO <sub>2</sub>	0.13	0.59
		VOC	0.2	0.88
		HCl	0.11	0.47
F-CrudeFlex	CCR/Crude Flex Fugitives (5)	VOC	17.12	74.97
		H <sub>2</sub> S	0.13	0.59
		NH <sub>3</sub>	0.09	0.39
MSS	Planned MSS Emissions	NO <sub>x</sub>	56.79	0.17
		CO	410.21	1.10
		SO <sub>2</sub>	0.69	<0.01
		PM	0.21	<0.01
		PM <sub>10</sub>	0.10	<0.01
		PM <sub>2.5</sub>	0.01	<0.01
		VOC	1064.56	7.30
F-SUMPCCR	CCR Sump	VOC	<0.01	0.02

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.  
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.  
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
NO<sub>x</sub> - total oxides of nitrogen  
SO<sub>2</sub> - sulfur dioxide  
PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented

Emission Sources - Maximum Allowable Emission Rates

- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- NH<sub>3</sub> - ammonia
- H<sub>2</sub>S - hydrogen sulfide
- Cl<sub>2</sub> - chlorine
- HCl - hydrochloric acid

(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.

Date: September 5, 2023

Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX205

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)
10-H2	Crude Charge Heater No. 1	CO <sub>2</sub> (5)	130,064
		CH <sub>4</sub> (5)	6.61
		N <sub>2</sub> O (5)	1.32
		CO <sub>2</sub> e	130,624
10-H3	Crude Charge Heater No. 2	CO <sub>2</sub> (5)	130,064
		CH <sub>4</sub> (5)	6.61
		N <sub>2</sub> O (5)	1.32
		CO <sub>2</sub> e	130,624
88-H1.1, 1.2, 1.3	CCR Charge and Interheaters	CO <sub>2</sub> (5)	218,198
		CH <sub>4</sub> (5)	11.09
		N <sub>2</sub> O (5)	2.22
		CO <sub>2</sub> e	219,136
88-V1	CCR Vent	CO <sub>2</sub> (5)	2,935.01
		CO <sub>2</sub> e	2,935.01
F-CrudeFlex	CCR/Crude Flex Fugitives (5)	CH <sub>4</sub> (5)	42.95
		CO <sub>2</sub> e	1,073.74
MSS	Planned MSS Emissions	CO <sub>2</sub> (5)	103.34
		CH <sub>4</sub> (5)	0.31
		N <sub>2</sub> O (5)	<0.01
		CO <sub>2</sub> e	111.45

(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) CO<sub>2</sub> - carbon dioxide

CH<sub>4</sub> - methane

N<sub>2</sub>O - nitrous oxide

CO<sub>2</sub>e - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015):

CO<sub>2</sub> (1), N<sub>2</sub>O (298), CH<sub>4</sub>(25), SF<sub>6</sub> (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.

Emission Sources - Maximum Allowable Emission Rates

(5) Emission rate is given for informational purposes only and does not constitute enforceable limit.

Date: September 5, 2023