

# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO  
Enterprise Products Operating LLC

AUTHORIZING THE OPERATION OF  
Mont Belvieu Complex  
Propane Dehydrogenation Unit II  
Natural Gas Liquid Extraction

LOCATED AT  
Chambers County, Texas  
Latitude 29° 51' 22" Longitude 94° 54' 44"  
Regulated Entity Number: RN102323268

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:     O4471     Issuance Date: \_\_\_\_\_

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For the Commission

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## **General Terms and Conditions**

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

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

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

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

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

## **Special Terms and Conditions:**

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

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

113, Subchapter C, §113.890, §113.1090 and §113.1130 which incorporates the 40 CFR Part 63 Subpart by reference.

- F. For the purpose of generating emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 1 (Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
- (i) Title 30 TAC § 101.302 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.303 (relating to Emission Reduction Credit Generation Certification)
  - (iii) Title 30 TAC § 101.304 (relating to Mobile Emission Reduction Credit Generation and Certification)
  - (iv) Title 30 TAC § 101.309 (relating to Emission Credit Banking and Trading)
  - (v) The terms and conditions by which the emission limits are established to generate the reduction credit are applicable requirements of this permit
- G. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 3 (Mass Emission Cap and Trade Program) Requirements:
- (i) Title 30 TAC § 101.352 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.353 (relating to Allocation of Allowances)
  - (iii) Title 30 TAC § 101.354 (relating to Allowance Deductions)
  - (iv) Title 30 TAC § 101.356 (relating to Allowance Banking and Trading)
  - (v) Title 30 TAC § 101.359 (relating to Reporting)
  - (vi) Title 30 TAC § 101.360 (relating to Level of Activity Certification)
  - (vii) The terms and conditions by which the emission limits are established to meet or exceed the cap are applicable requirements of this permit
- H. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
- (i) Title 30 TAC § 101.372 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.373 (relating to Discrete Emission Reduction Credit Generation and Certification)
  - (iii) Title 30 TAC § 101.374 (relating to Mobile Discrete Emission Reduction Credit Generation and Certification)
  - (iv) Title 30 TAC § 101.378 (relating to Discrete Emission Credit Banking and Trading)
  - (v) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit

- I. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 6 (Highly Reactive Volatile Organic Compound Emissions Cap and Trade Program) requirements:
  - (i) Title 30 TAC § 101.392 (relating to Exemptions)
  - (ii) Title 30 TAC § 101.401 (relating to Level of Activity Certification)
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. 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. For storage vessels maintaining working pressure as specified in 30 TAC Chapter 115, Subchapter B, Division 1: Storage of Volatile Organic Compounds, the permit holder shall comply with the requirements of 30 TAC § 115.112(e)(1).

5. The permit holder shall comply with the following requirements 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)
6. 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)
7. For facilities where total annual benzene quantity from waste is less than 1 megagram per year and subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(5)(i) - (ii), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions), for calculation procedures
  - B. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)
  - C. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)
  - D. Title 40 CFR § 61.357(a), and (b) (relating to Reporting Requirements)
8. 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.
9. For miscellaneous chemical process facilities subject to maintenance wastewater requirements as specified in 40 CFR § 63.2485, Table 7, the permit holder shall comply with the requirements of 40 CFR § 63.105 (relating to Maintenance Wastewater Requirements) (Title 30 TAC Chapter 113, Subchapter C, § 113.890 incorporated by reference).

## **New Source Review Authorization Requirements**

10. 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 August 21, 2023 in the application for project 35276), 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
11. 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.
12. 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**

13. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
14. Permit holder shall comply with the following 30 TAC Chapter 117 requirements:
  - A. The permit holder shall comply with the compliance schedules and submit written notification to the TCEQ Executive Director as required in 30 TAC Chapter 117, Subchapter H, Division 1:
    - (i) For sources in the Houston-Galveston-Brazoria Nonattainment area, 30 TAC § 117.9020:
      - (1) Title 30 TAC § 117.9020(2)(A), (C), and (D)

- B. The permit holder shall comply with the Initial Control Plan unit listing requirement in 30 TAC § 117.350(c) and (c)(1).
  - C. The permit holder shall comply with the requirements of 30 TAC § 117.354 for Final Control Plan Procedures for Attainment Demonstration Emission Specifications and 30 TAC § 117.356 for Revision of Final Control Plan.
15. Use of Emission Credits to comply with applicable requirements:
- A. Unless otherwise prohibited, the permit holder may use emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117
    - (iii) Offsets for Title 30 TAC Chapter 116
  - B. The permit holder shall comply with the following requirements in order to use the emission credits to comply with the applicable requirements:
    - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.306(c)-(d)
    - (ii) The emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 1
    - (iii) The executive director has approved the use of the credit according to 30 TAC § 101.306(c)-(d)
    - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.302(g) and 30 TAC Chapter 122
    - (v) Title 30 TAC § 101.305 (relating to Emission Reductions Achieved Outside the United States)
16. Use of Discrete Emission Credits to comply with the applicable requirements:
- A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117
    - (iii) If applicable, offsets for Title 30 TAC Chapter 116
    - (iv) Temporarily exceed state NSR permit allowables
  - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
    - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)

- (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
- (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
- (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
- (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

#### **Permit Location**

- 17. 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)**

- 18. 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**

**Permit Shield**

**New Source Review Authorization References**

### **Applicable Requirements Summary**

**Unit Summary** ..... 13

**Applicable Requirements Summary** ..... 17

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>
DEETHNEREC	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5H1-01	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
DEETHNEREC	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-01	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
DEETHNEREC	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63FFFF-V01	40 CFR Part 63, Subpart FFFF	No changing attributes.
FUG-NGAS	FUGITIVE EMISSION UNITS	N/A	R5780-01	30 TAC Chapter 115, HRVOC Fugitive Emissions	No changing attributes.
FUG-NGAS	FUGITIVE EMISSION UNITS	N/A	R5352-01	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	No changing attributes.
FUG-NGAS	FUGITIVE EMISSION UNITS	N/A	60VVA-01	40 CFR Part 60, Subpart VVA	No changing attributes.
FUG-PDH2	FUGITIVE EMISSION UNITS	N/A	R5780-ALL	30 TAC Chapter 115, HRVOC Fugitive Emissions	No changing attributes.
FUG-PDH2	FUGITIVE EMISSION UNITS	N/A	R5352-ALL	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	No changing attributes.
FUG-PDH2	FUGITIVE EMISSION UNITS	N/A	60VVA-ALL	40 CFR Part 60, Subpart VVA	No changing attributes.
FUG-PDH2	FUGITIVE EMISSION UNITS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
FUG-SCR	FUGITIVE EMISSION UNITS	N/A	R5780-01	30 TAC Chapter 115, HRVOC Fugitive Emissions	No changing attributes.
FUG-SCR	FUGITIVE EMISSION UNITS	N/A	R5352-01	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	No changing attributes.
FUG-SCR	FUGITIVE EMISSION	N/A	60VVA-01	40 CFR Part 60, Subpart	No changing attributes.

**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>
	UNITS			VVa	
GEN-001	SRIC ENGINES	N/A	R7300-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
GEN-001	SRIC ENGINES	N/A	60III-1	40 CFR Part 60, Subpart IIII	No changing attributes.
GEN-001	SRIC ENGINES	N/A	63ZZZZ-1	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GEN-002	SRIC ENGINES	N/A	R7300-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
GEN-002	SRIC ENGINES	N/A	60III-2	40 CFR Part 60, Subpart IIII	No changing attributes.
GEN-002	SRIC ENGINES	N/A	63ZZZZ-2	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GEN-003	SRIC ENGINES	N/A	R7300-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
GEN-003	SRIC ENGINES	N/A	60III-2	40 CFR Part 60, Subpart IIII	No changing attributes.
GEN-003	SRIC ENGINES	N/A	63ZZZZ-2	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
HR15.101	PROCESS HEATERS/FURNACES	N/A	R7300-01	30 TAC Chapter 117, Subchapter B	No changing attributes.
HR15.101	PROCESS HEATERS/FURNACES	N/A	63DDDDD-01	40 CFR Part 63, Subpart DDDDD	No changing attributes.
HR15.102	PROCESS HEATERS/FURNACES	N/A	R7300-01	30 TAC Chapter 117, Subchapter B	No changing attributes.
HR15.102	PROCESS HEATERS/FURNACES	N/A	63DDDDD-01	40 CFR Part 63, Subpart DDDDD	No changing attributes.
HR15.601	PROCESS HEATERS/FURNACES	N/A	R7300-02	30 TAC Chapter 117, Subchapter B	No changing attributes.
HR15.601	BOILERS/STEAM	N/A	60DB-01	40 CFR Part 60, Subpart Db	No changing attributes.



**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>
	GENERATORS/STEAM GENERATING UNITS				
HR15.601	PROCESS HEATERS/FURNACES	N/A	63DDDDD-01	40 CFR Part 63, Subpart DDDDD	No changing attributes.
LO-1	LOADING/UNLOADING OPERATIONS	N/A	R5211-01	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
LO-2	LOADING/UNLOADING OPERATIONS	N/A	R5211-01	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
PDHII-MCPU	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-01	40 CFR Part 63, Subpart FFFF	No changing attributes.
PV17.210	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5H1-02	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
PV17.210	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-02	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
PV17.210	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63FFFF-V02	40 CFR Part 63, Subpart FFFF	No changing attributes.
REACTORVNT	REACTOR	N/A	60RRR-01	40 CFR Part 60, Subpart RRR	No changing attributes.
SK25.801	FLARES	N/A	R111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.
SK25.801	FLARES	N/A	R5720-01	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
SK25.801	FLARES	N/A	60A-01	40 CFR Part 60, Subpart A	No changing attributes.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
SK25.801	FLARES	N/A	63A-01	40 CFR Part 63, Subpart A	No changing attributes.
SV19.863	STORAGE TANKS/VESSELS	N/A	R5112-01	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
SV19.864	STORAGE TANKS/VESSELS	N/A	R5112-01	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
SV19.911	STORAGE TANKS/VESSELS	N/A	R5112-01	30 TAC Chapter 115, Storage of VOCs	No changing attributes.

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
DEETHNER EC	EP	R5H1-01	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(f) § 115.725(n)	All sites that are subject to this division and that are located in the Houston/Galveston/ Brazoria area as defined in §115.10 of this title (relating to Definitions), excluding Harris County, are exempt from § 115.722(b) and (c)(2) of this title, except as provided in § 115.729(a)(3) of this title (relating to Counties and Compliance Schedules).	None	§ 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	§ 115.725(n)
DEETHNER EC	EP	R5121-01	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.122(a)(2) § 115.121(a)(2) § 115.122(a)(2)(A) § 60.18	Any vent gas streams affected by §115.121(a)(2) of this title must be controlled properly with a control efficiency of at least 98% or to a VOC concentration of no more than 20 ppmv (on a dry basis corrected to 3.0% oxygen for combustion devices).	[G]§ 115.125 § 115.126(1) § 115.126(1)(B) § 115.126(2) § 115.126(7)	§ 115.126 § 115.126(1) § 115.126(1)(B) § 115.126(2)	None
DEETHNER EC	EP	63FFFF-V01	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a)-Table 1.1.a.ii § 63.11(b) § 63.2450(b) § 63.2455(a) § 63.2455(b) § 63.2455(b)(1) § 63.982(b) § 63.983(a)(1) § 63.983(a)(2) § 63.983(d)(1) § 63.983(d)(1)(i) [G]§ 63.983(d)(2)	For each Group 1 continuous process vent, the owner or operator must reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare.	[G]§ 63.115(d)(2)(v) § 63.115(d)(3)(iii) § 63.983(b) [G]§ 63.983(b)(1) [G]§ 63.983(b)(2) [G]§ 63.983(b)(3) [G]§ 63.983(c)(1) § 63.983(c)(2) § 63.983(c)(3) § 63.983(d)(1) § 63.983(d)(1)(ii) [G]§ 63.987(b)(3)(i) § 63.987(b)(3)(ii)	§ 63.2450(f)(2) § 63.2450(f)(2)(i) § 63.2450(f)(2)(ii) § 63.983(b) [G]§ 63.983(d)(2) § 63.987(b)(1) § 63.987(c) § 63.998(a)(1) [G]§ 63.998(a)(1)(i) § 63.998(a)(1)(ii) § 63.998(a)(1)(iii)(A) § 63.998(a)(1)(iii)(B) [G]§ 63.998(b)(1)	§ 63.2450(f)(2)(ii) § 63.2450(q) § 63.987(b)(1) § 63.997(c)(3) § 63.998(a)(1)(iii)(A) [G]§ 63.998(b)(3) [G]§ 63.999(a)(1) [G]§ 63.999(a)(2) § 63.999(b)(5) § 63.999(c)(1) § 63.999(c)(2)(i) § 63.999(c)(3) § 63.999(c)(6)

**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)
					§ 63.983(d)(3) § 63.987(a) § 63.987(b)(1) § 63.987(b)(3) [G]§ 63.997(c)(1) § 63.997(c)(3)		§ 63.987(b)(3)(iii) § 63.987(b)(3)(iv) § 63.987(c) § 63.997(a) [G]§ 63.997(c)(1) § 63.997(c)(2) § 63.997(c)(3) § 63.997(c)(3)(i) § 63.997(c)(3)(ii)	[G]§ 63.998(b)(2) [G]§ 63.998(b)(3) [G]§ 63.998(b)(5) [G]§ 63.998(d)(1) § 63.998(d)(3)(i) § 63.998(d)(3)(ii) § 63.998(d)(5)	[G]§ 63.999(c)(6)(i) § 63.999(c)(6)(iv) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2)
FUG-NGAS	EU	R5780-01	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(a)	Components that contact a process fluid containing less than 5.0% highly-reactive volatile organic compounds by weight on an annual average basis are exempt from the requirements of this division (relating to Fugitive Emissions), except for 115.786(e) and (g) of this title (relating to Record keeping Requirements).	None	§ 115.786(e) § 115.786(g)	None
FUG-NGAS	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(6)	Components at a petroleum refinery or synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process, that contact a process fluid that contains less than 10% VOC by weight are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
FUG-NGAS	EU	60VVA-01	VOC	40 CFR Part 60, Subpart VVa	§ 60.480a(d)(5) § 60.480a(d)(1) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k)	Any affected facility that has no equipment in VOC service is exempted from §§60.482-1a through 60.482-11a.	None	§ 60.486a(i) § 60.486a(i)(3) § 60.486a(j)	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)
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(5) § 115.787(f) § 115.787(f)(2) § 115.787(f)(3) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	Open-ended valves or lines within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2) § 115.781(f)(3) § 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2) § 115.789(1)(B)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(2) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g) § 115.789(1)(B)
FUG-PDH2	EU	R5780-ALL	Highly Reactive	30 TAC Chapter 115, HRVOC	§ 115.781(b)(9) § 115.358(c)(1)	Components within the process unit or processes	§ 115.354(1) § 115.354(11)	§ 115.354(13)(D) § 115.354(13)(E)	[G]§ 115.358(g) [G]§ 115.782(c)(1)(B)(i)

**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)
			VOC	Fugitive Emissions	[G]§ 115.358(h) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(2) § 115.782(b)(3) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv)	listed in §115.780(a) is subject to the requirements of this division. If the owner of operator elects to use the alternative work practice in §115.358 of this title, a leak is defined as specified in §115.358 of this title, including any leak detected using the alternative work practice on a component that is subject to the requirements of this division but not specifically selected for alternative work practice monitoring.	§ 115.354(13)(A) § 115.354(13)(B) § 115.354(13)(C) § 115.354(13)(D) § 115.354(13)(E) § 115.354(13)(F) § 115.354(4) § 115.354(5) § 115.354(9) § 115.358(c)(2) § 115.358(d) [G]§ 115.358(e) § 115.358(f) § 115.781(b) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(h)(1) § 115.781(h)(2) § 115.781(h)(3) § 115.781(h)(4) § 115.781(h)(5) [G]§ 115.781(h)(6) § 115.782(b)(4) § 115.782(d)(1) § 115.788(h)(1) [G]§ 115.788(h)(2) § 115.788(h)(3)	§ 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(4) § 115.356(5) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) [G]§ 115.786(f) § 115.786(g)	[G]§ 115.786(c)
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2)	Agitators within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b)	which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(c)(1) § 115.781(c)(2) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§	Pump seals within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product,	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1)	or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(b)(7)(B) § 115.781(c)(1) § 115.781(c)(2) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii)	Compressor seals within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(c)(1) § 115.781(c)(2)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)



**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b)	defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	[G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv)	Flanges or other connectors within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2) § 115.781(f)(3)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.789(1)(B)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						background as methane for all components.	§ 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2) § 115.789(1)(B)	§ 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(5) § 115.787(f) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D)	Valves within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(2) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)				
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.787(e) § 115.787(f) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3)	Pressure relief valves (in gaseous service) within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(b)(8) § 115.781(e) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)				
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.783(4)(A)(i) § 115.783(4)(A)(ii) § 115.783(4)(A)(ii)(I) § 115.783(4)(A)(ii)(II) § 115.783(4)(B) § 115.783(4)(B)(i) § 115.783(4)(B)(ii)	Process drains within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(5) § 115.781(b)(6) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c)
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(a)	Components that contact a process fluid containing less than 5.0% highly-reactive volatile organic compounds by weight on an annual average basis are exempt from the requirements of this division (relating to	None	§ 115.786(e) § 115.786(g)	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)
						Fugitive Emissions), except for 115.786(e) and (g) of this title (relating to Record keeping Requirements).			
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv)	Heat exchanger heads, sight glasses, meters, gauges, sampling connections, bolted manways, hatches, sump covers, junction box vents, and covers and seals on VOC water separators within the process unit or processes listed in §115.780(a) in which a HRVOC is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2) § 115.781(f)(3) § 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2) § 115.789(1)(B)	§ 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.789(1)(B)
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) [G]§ 115.781(d) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii)	Bypass line valves within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements	§ 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) [G]§ 115.781(d) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2) § 115.786(a)(1) § 115.786(a)(2) § 115.786(a)(2)(A) § 115.786(a)(2)(B) § 115.786(b)(1) § 115.786(b)(2) § 115.786(b)(2)(A)	§ 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(2)(A)(ii) § 115.786(a)(1) § 115.786(a)(2) § 115.786(a)(2)(A) § 115.786(a)(2)(B) § 115.786(b)(1) § 115.786(b)(2) § 115.786(b)(2)(A)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g)

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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)
					115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(1) § 115.783(1)(A) § 115.783(1)(B) § 115.783(5) § 115.787(f) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.		§ 115.786(b)(2)(B) § 115.786(b)(2)(C) [G]§ 115.786(b)(3) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(2) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(d) § 115.780(b) [G]§ 115.781(a) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii)	All agitators that are equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal are exempt from the monitoring requirement of §115.781(b) and (c). Submerged pumps or sealless pumps may be used to satisfy the requirements of this subsection.	§ 115.782(d)(2)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1) § 115.787(g)				
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(d) § 115.780(b) [G]§ 115.781(a) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) §	All compressors that are equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal are exempt from the monitoring requirement of §115.781(b) and (c). Submerged pumps or sealless pumps may be used to satisfy the requirements of this subsection.	§ 115.782(d)(2)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1) § 115.787(g)				
FUG-PDH2	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(d) § 115.780(b) [G]§ 115.781(a) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i)	All pumps that are equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal are exempt from the monitoring requirement of §115.781(b) and (c). Submerged pumps or sealless pumps may be used to satisfy the requirements of this subsection.	§ 115.782(d)(2)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)



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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1) § 115.787(g)				
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(4) § 115.357(8)	No compressor seals that are equipped with a shaft sealing system that prevents or detects emissions of VOCs from the seal shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C)	No compressor seals contacting a fluid with TVP less than or equal to 0.044 psia (heavy liquid service) shall be allowed to have a	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3)	None

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1) § 115.357(8)	VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355 § 115.357(1)	§ 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8) § 115.357(9)	No valves contacting a fluid with TVP greater than 0.044 psia (gas/vapor or light liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(8) § 115.357(1) § 115.357(12) § 115.357(8)	No flanges or other connectors contacting a fluid with TVP less than or equal to 0.044 psia (heavy liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping	§ 115.354(1) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	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)
						or exuding of process fluid based on sight, smell, or sound.			
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(8) § 115.357(12) § 115.357(8)	No flanges or other connectors contacting a fluid with TVP greater than 0.044 psia (gas/vapor or light liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(iii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(1) § 115.357(8)	No agitators contacting a fluid with TVP less than or equal to 0.044 psia (heavy liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A)	No agitators contacting a fluid with TVP greater than 0.044 psia (gas/vapor or light liquid service) shall be	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2)	None

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(8)	allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.		§ 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(3) § 115.357(8)	No compressor seals in hydrogen service with and the hydrogen content can be expected to always exceed 50.0% by volume shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1)	No valves contacting a fluid with TVP less than or equal to 0.044 psia (heavy liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5)	[G]§ 115.354(7)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.357(8) § 115.357(9)	the dripping or exuding of process fluid based on sight, smell, or sound.			
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8) § 115.357(9)	No open-ended valves or lines contacting a fluid with TVP greater than 0.044 psia (gas/vapor or light liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(8) § 115.357(9)	No open-ended valves or lines contacting a fluid with TVP less than or equal to 0.044 psia (heavy liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B)	No pressure relief valves contacting a fluid with TVP greater than 0.044 psia (gas/vapor or light liquid service) shall be allowed to	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(4) § 115.354(5)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2)	[G]§ 115.354(7)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(3) § 115.352(5) § 115.352(7) § 115.352(9) § 115.357(12) § 115.357(8) § 115.357(9)	have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(9) § 115.357(1) § 115.357(8) § 115.357(9)	No pressure relief valves contacting a fluid with TVP less than or equal to 0.044 psia (heavy liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(7)	No process drains contacting a fluid with TVP greater than 0.044 psia (gas/vapor or light liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5)	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)
						process fluid based on sight, smell, or sound.			
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	No compressor seals contacting a fluid with TVP greater than 0.044 psia (gas/vapor or light liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(4) § 115.357(8)	No pump seals that are equipped with a shaft sealing system that prevents or detects emissions of VOCs from the seal shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C)	No pump seals contacting a fluid with TVP less than or equal to 0.044 psia (heavy liquid service) shall be allowed to have a VOC	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3)	None

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1) § 115.357(8)	leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355 § 115.357(1)	[G]§ 115.356(3)(C) § 115.356(5)	
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	No pump seals contacting a fluid with TVP greater than 0.044 psia (gas/vapor or light liquid service) shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(C) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(8)	If the owner or operator elects to use the alternative work practice in §115.358, no component shall be allowed to have a VOC leak, detected as defined in §115.358, for more than 15 days after discovery. This includes any leak detected using the alternative work practice on a component that is subject to the requirements of this division	§ 115.354(1) § 115.354(11) § 115.354(13)(A) § 115.354(13)(B) § 115.354(13)(C) § 115.354(13)(D) § 115.354(13)(E) § 115.354(13)(F) § 115.354(4) § 115.354(5) § 115.354(9) [G]§ 115.355 § 115.358(c)(2)	§ 115.352(7) § 115.354(13)(D) § 115.354(13)(E) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) [G]§ 115.356(4) § 115.356(5)	[G]§ 115.358(g)



**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.358(c)(1) [G]§ 115.358(h)	but not specifically selected for alternative work practice monitoring.	§ 115.358(d) [G]§ 115.358(e) § 115.358(f)		
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(5)	Reciprocating compressors and positive displacement pumps used in natural gas/gasoline processing operations are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(10)	Instrumentation systems, as defined in 40 CFR §63.161 (January 17, 1997), that meet 40 CFR §63.169 (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(11)	Sampling connection systems, as defined in 40 CFR §63.161 (January 17, 1997), that meet the requirements of 40 CFR §63.166(a) and (b) (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(13)	Components/systems that contact a process fluid containing VOC having a true vapor pressure equal to or less than 0.002 psia at 68 degrees Fahrenheit are exempt from the requirements of this division	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						except §115.356(3)(C) of this title.			
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(6)	Components at a petroleum refinery or synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process, that contact a process fluid that contains less than 10% VOC by weight are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(2) § 115.352(9)	Conservation vents or other devices on atmospheric storage tanks that are actuated either by a vacuum or a pressure of no more than 2.5 psig, pressure relief valves equipped with a rupture disk or venting to a control device, components in continuous vacuum service, and valves that are not externally regulated (such as in-line check valves) are exempt from the requirements of this division, except that each pressure relief valve equipped with a rupture disk must comply with §115.352(9) and §115.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
FUG-PDH2	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(2) § 115.352(2)(A) § 115.352(3)	No process drains contacting a fluid with TVP less than or equal to 0.044 psia (heavy liquid service) shall be allowed to have a	§ 115.354(1) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3)	None

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(7) § 115.357(1)	VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.357(1)	§ 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 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)	If an instrument reading greater than or equal to 500 ppm is measured in connectors in gas and vapor and light liquid service, a leak is detected.	§ 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)	§ 60.482-11a(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)
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 60.482-6a(a)(1) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 60.482-6a(a)(2) § 60.482-6a(b) § 60.482-6a(c) § 60.482-6a(d) § 60.482-6a(e)	Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482-1a(c) and paragraphs (d) and (e) of this section.	§ 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)

**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(b) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k)				§ 60.487a(e)
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 60.482-8a(b) § 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) [G]§ 60.482-8a(c) § 60.482-8a(d) § 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)	At a pump in heavy liquid service, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.	§ 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)	§ 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)
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 60.482-8a(b) § 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) [G]§ 60.482-8a(c) § 60.482-8a(d) § 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)	At a valve in heavy liquid service, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.	§ 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)	§ 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)
					[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)				
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	[G]§ 60.482-2a(b)(1) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 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) § 60.485a(c)(1) § 60.485a(f) § 60.486a(a)(1)	The instrument reading that defines a leak in a pump in light liquid service is 5,000 parts per million (ppm) or greater for pumps handling polymerizing monomers or 2,000 ppm or greater for all other pumps, as specified in paragraphs (b)(1)(i) and (ii) of this section. §60.482-2a(b)(1)(i)-(ii)	§ 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)	§ 60.482-1a(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)
					§ 60.486a(a)(2) § 60.486a(k)				
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 60.482-3a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) [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)	Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in §60.482-3a(c) and paragraphs (h), (i), and (j) of this section.	§ 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)	§ 60.482-1a(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)
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 60.482-5a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) [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)	Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §60.482-1a(c) and paragraph (c) of this section.	§ 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)
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 60.482-8a(b) § 60.482-1a(a) § 60.482-1a(b)	At a connector in heavy liquid service, if an instrument reading of	§ 60.482-1a(g) § 60.482-8a(a)(1) § 60.482-9a(a)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.482-1a(g) [G]§ 60.482-2a(c)(2) [G]§ 60.482-7a(e) § 60.482-8a(a) § 60.482-8a(a)(2) [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)	10,000 ppm or greater is measured, a leak is detected.	§ 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d)	[G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 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)
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 60.482-4a(a) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 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) § 60.485a(f) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k)	Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in §60.485a(c).	§ 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)	§ 60.482-1a(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)
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 60.482-8a(b) § 60.482-1a(a) § 60.482-1a(b)	At a pressure relief device in light liquid or heavy liquid service, if an instrument	§ 60.482-1a(g) § 60.482-8a(a)(1) § 60.482-9a(a)	§ 60.482-1a(g) § 60.485a(b)(2) [G]§ 60.486a(a)(3)	§ 60.487a(a) § 60.487a(b) § 60.487a(b)(1)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.482-1a(g) [G]§ 60.482-2a(c)(2) [G]§ 60.482-7a(e) § 60.482-8a(a) § 60.482-8a(a)(2) [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)	reading of 10,000 ppm or greater is measured, a leak is detected.	§ 60.485a(a) [G]§ 60.485a(b)(1) § 60.485a(b)(2) [G]§ 60.485a(d) [G]§ 60.485a(e)	[G]§ 60.486a(b) [G]§ 60.486a(c) § 60.486a(e) § 60.486a(e)(1) [G]§ 60.486a(e)(8)	§ 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)
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 60.482-7a(b) § 60.482-1a(a) § 60.482-1a(b) § 60.482-1a(g) § 60.482-7a(a)(1) [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)	At a valve in gas vapor service if an instrument reading of 500 ppm or greater is measured, a leak is detected.	§ 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)	§ 60.482-1a(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)
FUG-PDH2	EU	60VVA-	VOC	40 CFR Part 60,	[G]§ 60.482-1a(e)	Equipment that an owner or	[G]§ 60.485a(b)(1)	§ 60.485a(b)(2)	None



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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
		ALL		Subpart VVa	§ 60.482-1a(a) § 60.482-1a(b) § 60.485a(b) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k)	operator designates as being in VOC service less than 300 hours (hr)/yr is excluded from the requirements of §§ 60.482-2a through 60.482-11a if it is identified as required in §60.486a(e)(6) and it meets any of the conditions specified in paragraphs (e)(1) through (3) of this section. §60.482-1a(e)(1)-(3)	§ 60.485a(b)(2)	§ 60.486a(e) § 60.486a(e)(1) § 60.486a(e)(6)	
FUG-PDH2	EU	60VVA-ALL	VOC	40 CFR Part 60, Subpart VVa	§ 60.482-1a(d) § 60.482-1a(a) § 60.482-1a(b) § 60.485a(b) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k)	Equipment that is in vacuum service is excluded from the requirements of §60.482-2a to §60.482-10a, if it is identified as required in §60.486a(e)(5).	[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
FUG-PDH2	EU	63FFFF-1	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2480(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart FFFF
FUG-SCR	EU	R5780-01	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(a)	Components that contact a process fluid containing less than 5.0% highly-reactive volatile organic compounds by weight on an annual average basis are exempt from the requirements of this division (relating to	None	§ 115.786(e) § 115.786(g)	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)
						Fugitive Emissions), except for 115.786(e) and (g) of this title (relating to Record keeping Requirements).			
FUG-SCR	EU	R5352-01	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(6)	Components at a petroleum refinery or synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process, that contact a process fluid that contains less than 10% VOC by weight are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
FUG-SCR	EU	60VVA-01	VOC	40 CFR Part 60, Subpart VVa	§ 60.480a(d)(5) § 60.480a(d)(1) § 60.486a(a)(1) § 60.486a(a)(2) § 60.486a(k)	Any affected facility that has no equipment in VOC service is exempted from §§60.482-1a through 60.482-11a.	None	§ 60.486a(i) § 60.486a(i)(3) § 60.486a(j)	None
GEN-001	EU	R7300-1	Exempt	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(11) [G]§ 117.310(f)	Units exempted from the provisions of this division except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1) and 117.354(a)(5) include new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and meets the requirements for non-road engines as specified.	None	§ 117.340(j) § 117.345(f) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						§117.303(a)(11)(A)-(B)			
GEN-001	EU	60III-1	CO	40 CFR Part 60, Subpart III	§ 60.4205(b) § 1042.101 § 60.4202(f)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 5.0 g/KW-hr, as stated in 40 CFR 60.4202(e)-(f), 40 CFR 1042.101, and 40 CFR 1042-Appendix I.	None	None	[G]§ 60.4214(d)
GEN-001	EU	60III-1	HC and NO <sub>x</sub>	40 CFR Part 60, Subpart III	§ 60.4205(b) § 1042.101 § 60.4202(f)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power less than 600 KW and a displacement of greater than or equal to 15 liters per cylinder and less than 20 liters per cylinder and is a 2014 model year and later must comply with an HC+NO <sub>x</sub> emission limit of 6.2 g/KW-hr, as stated in 40 CFR 60.4202(f)(2) and 40 CFR 1042.101.	None	None	[G]§ 60.4214(d)
GEN-001	EU	60III-1	PM	40 CFR Part 60, Subpart III	§ 60.4205(b) § 1042.101 § 60.4202(f)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power less than 600 KW and a displacement of greater than or equal to 15	None	None	[G]§ 60.4214(d)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 60.4211(f) § 60.4218	liters per cylinder and less than 20 liters per cylinder and is a 2014 model year and later must comply with a PM emission limit of 0.14 g/KW-hr, as stated in 40 CFR 60.4202(f)(2) and 40 CFR 1042.101.			
GEN-001	EU	63ZZZZ-1	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(b)(1) § 63.6595(c) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	An affected source which meets either of the criteria in paragraphs §63.6590(b)(1)(i)-(ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).	None	None	§ 63.6645(f)
GEN-002	EU	R7300-1	Exempt	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(11) [G]§ 117.310(f)	Units exempted from the provisions of this division except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1) and 117.354(a)(5) include new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and meets the requirements for non-road engines as specified. §117.303(a)(11)(A)-(B)	None	§ 117.340(j) § 117.345(f) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GEN-002	EU	60III-2	CO	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 1039-Appendix I § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 3.5 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 1039-Appendix I.	None	None	[G]§ 60.4214(d)
GEN-002	EU	60III-2	NMHC and NO <sub>x</sub>	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 1039-Appendix I § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 75 KW and less than or equal to 560 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with an NMHC+NO <sub>x</sub> emission limit of 4.0 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 1039-Appendix I.	None	None	[G]§ 60.4214(d)
GEN-002	EU	60III-2	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 1039-Appendix I § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW	None	None	[G]§ 60.4214(d)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 60.4211(f) § 60.4218	and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a PM emission limit of 0.20 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 1039-Appendix I.			
GEN-002	EU	60III-2	PM (Opacity)	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 1039.105(b)(1) § 1039.105(b)(2) § 1039.105(b)(3) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Emergency stationary CI ICE, that are not fire pump engines, with displacement < 10 lpc and not constant-speed engines, with max engine power < 2237 KW and a 2007 model year and later or max engine power > 2237 KW and a 2011 model year and later, must comply with following opacity emission limits: 20% during acceleration, 15% during lugging, 50% during peaks in either acceleration or lugging modes as stated in §60.4202(a)(1)-(2), (b)(2), and 40 CFR 1039.105(b)(1)-(3).	None	None	[G]§ 60.4214(d)
GEN-002	EU	63ZZZZ-2	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition	None	None	None

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines as applicable. No further requirements apply for such engines under this part.			
GEN-003	EU	R7300-1	Exempt	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(11) [G]§ 117.310(f)	Units exempted from the provisions of this division except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1) and 117.354(a)(5) include new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and meets the requirements for non-road engines as specified. §117.303(a)(11)(A)-(B)	None	§ 117.340(j) § 117.345(f) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
GEN-003	EU	60III-2	CO	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 1039-Appendix I § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 3.5 g/KW-hr, as stated in 40	None	None	[G]§ 60.4214(d)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						CFR 60.4202(a)(2) and 40 CFR 1039-Appendix I.			
GEN-003	EU	60III-2	NMHC and NO <sub>x</sub>	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 1039-Appendix I § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 75 KW and less than or equal to 560 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with an NMHC+NO <sub>x</sub> emission limit of 4.0 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 1039-Appendix I.	None	None	[G]§ 60.4214(d)
GEN-003	EU	60III-2	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 1039-Appendix I § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a PM emission limit of 0.20 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 1039-Appendix I.	None	None	[G]§ 60.4214(d)
GEN-003	EU	60III-2	PM (Opacity)	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 1039.105(b)(1) § 1039.105(b)(2) § 1039.105(b)(3) § 60.4202(a)(2)	Emergency stationary CI ICE, that are not fire pump engines, with displacement < 10 lpc and not constant-speed engines, with max	None	None	[G]§ 60.4214(d)



**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	engine power < 2237 KW and a 2007 model year and later or max engine power > 2237 KW and a 2011 model year and later, must comply with following opacity emission limits: 20% during acceleration, 15% during lugging, 50% during peaks in either acceleration or lugging modes as stated in §60.4202(a)(1)-(2), (b)(2), and 40 CFR 1039.105(b)(1)-(3).			
GEN-003	EU	63ZZZZ-2	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines as applicable. No further requirements apply for such engines under this part.	None	None	None
HR15.101	EU	R7300-01	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.310(c)(3) § 117.340(f)(1)	CO emissions must not exceed 400 ppmv at 3.0% O <sub>2</sub> , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(7) § 117.345(f)(8) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							§ 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(e) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) ) § 117.8100(a)(1)(B)(iii) ) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8120 § 117.8120(1) § 117.8120(1)(A)	§ 117.8100(a)(5)(C)	§ 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
HR15.101	EU	R7300-01	NH <sub>3</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(B) § 117.340(f)(1)	For process heaters that inject urea or ammonia into the exhaust stream for NO <sub>x</sub> control, ammonia emissions must not exceed 10 ppmv at 3.0% O <sub>2</sub> , dry.	§ 117.335(a)(2) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(g) § 117.340(b)(1) § 117.340(b)(3)	§ 117.345(a) § 117.345(f) § 117.345(f)(11) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							§ 117.340(d) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8130 § 117.8130(4)		§ 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
HR15.101	EU	R7300-01	NO <sub>x</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(i) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(f)(1) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO <sub>x</sub> emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(2) § 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(f)(2) § 117.340(l)(2) § 117.340(o)(1)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(3) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5)

**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)
						operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	§ 117.340(p)(1) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(i) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)		§ 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
HR15.101	EU	63DDDD-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)
HR15.102	EU	R7300-01	CO	30 TAC Chapter	§ 117.310(c)(1)	CO emissions must not	[G]§ 117.335(a)(1)	§ 117.345(a)	§ 117.335(b)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				117, Subchapter B	§ 117.310(c)(1)(A) § 117.310(c)(3) § 117.340(f)(1)	exceed 400 ppmv at 3.0% O <sub>2</sub> , dry basis.	§ 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(e) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) ) § 117.8100(a)(1)(B)(iii) ) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8120 § 117.8120(1) § 117.8120(1)(A)	§ 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(7) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
HR15.102	EU	R7300-01	NH <sub>3</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(B)	For process heaters that inject urea or ammonia into	§ 117.335(a)(2) § 117.335(a)(4)	§ 117.345(a) § 117.345(f)	§ 117.335(b) § 117.335(g)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 117.340(f)(1)	the exhaust stream for NO <sub>x</sub> control, ammonia emissions must not exceed 10 ppmv at 3.0% O <sub>2</sub> , dry.	§ 117.335(b) § 117.335(c) § 117.335(d) § 117.335(g) § 117.340(b)(1) § 117.340(b)(3) § 117.340(d) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) ) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8130 § 117.8130(4)	§ 117.345(f)(11) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	[G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
HR15.102	EU	R7300-01	NO <sub>x</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(i) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(f)(1)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO <sub>x</sub> emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3,	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(2) § 117.335(g) § 117.340(a) § 117.340(b)(1)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(3) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(3)	except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	§ 117.340(b)(3) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(f)(2) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(i) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)		§ 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
HR15.102	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	§ 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)

**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)
						Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions.			[G]§ 63.7550(h)
HR15.601	EU	R7300-02	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.310(c)(3) § 117.340(f)(1)	CO emissions must not exceed 400 ppmv at 3.0% O <sub>2</sub> , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(e) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) ) § 117.8100(a)(1)(B)(iii) ) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(7) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)



**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							§ 117.8120 § 117.8120(1) § 117.8120(1)(A)		
HR15.601	EU	R7300-02	NH <sub>3</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(B) § 117.340(f)(1)	For process heaters that inject urea or ammonia into the exhaust stream for NO <sub>x</sub> control, ammonia emissions must not exceed 10 ppmv at 3.0% O <sub>2</sub> , dry.	§ 117.335(a)(2) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(g) § 117.340(b)(1) § 117.340(b)(3) § 117.340(d) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8130 § 117.8130(4)	§ 117.345(a) § 117.345(f) § 117.345(f)(11) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
HR15.601	EU	R7300-02	NO <sub>x</sub>	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(i)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(f)(1) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(3)	117.9800 to comply with the NO <sub>x</sub> emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	§ 117.335(d) § 117.335(f) § 117.335(f)(2) § 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(f)(2) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(i) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)	§ 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.345(d) § 117.345(d)(3) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
HR15.601	EU	60DB-01	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).			
HR15.601	EU	60DB-01	PM (Opacity)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
HR15.601	EU	60DB-01	SO <sub>2</sub>	40 CFR Part 60, Subpart Db	§ 60.42b(k)(2)	Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO <sub>2</sub> emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO <sub>2</sub> emissions limit in §60.42b(k)(1).	§ 60.47b(f)	§ 60.45b(k) § 60.49b(o) § 60.49b(r) § 60.49b(r)(1)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(r) § 60.49b(r)(1)
HR15.601	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)
LO-1	EU	R5211-01	VOC	30 TAC Chapter 115, Loading and	§ 115.217(a)(1) § 115.214(a)(1)(B)	Vapor pressure (at land-based operations). All land-	§ 115.214(a)(1)(A) §	§ 115.216 § 115.216(2)	None

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				Unloading of VOC	§ 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of this division, except as specified.	115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216(3)(B)	
LO-2	EU	R5211-01	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(1) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of this division, except as specified.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None
PDHII-MCPU	PRO	63FFFF-01	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2440(a) § 63.2450(a) § 63.2450(l) § 63.2465(a) § 63.2465(a)-Table 3.1.b § 63.2465(b) § 63.2465(c) § 63.2465(c)(2) § 63.2465(c)(3)	This subpart applies to each miscellaneous organic chemical manufacturing affected source.	§ 63.2445(d) § 63.2445(e) § 63.2445(f) § 63.2450(h) § 63.2465(c)(1)	§ 63.2445(f) § 63.2525 § 63.2525(a) [G]§ 63.2525(b) § 63.2525(c) § 63.2525(f) § 63.2525(j)	§ 63.2435(d) § 63.2445(c) § 63.2450(g)(5) § 63.2450(m) § 63.2450(m)(1) § 63.2450(m)(2) § 63.2450(q) § 63.2515(a) § 63.2515(b)(2) § 63.2515(c) § 63.2520(a) [G]§ 63.2520(b) [G]§ 63.2520(c) [G]§ 63.2520(d) § 63.2520(e) § 63.2520(e)(1) [G]§ 63.2520(e)(10) § 63.2520(e)(2) § 63.2520(e)(3) § 63.2520(e)(4) § 63.2520(e)(5) § 63.2520(e)(5)(i)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									[G]§ 63.2520(e)(5)(ii) [G]§ 63.2520(e)(5)(iii) § 63.2520(e)(6) § 63.2520(e)(7) § 63.2520(e)(9)
PV17.210	EP	R5H1-02	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(f) § 115.725(n)	All sites that are subject to this division and that are located in the Houston/Galveston/Brazoria area as defined in §115.10 of this title (relating to Definitions), excluding Harris County, are exempt from § 115.722(b) and (c)(2) of this title, except as provided in § 115.729(a)(3) of this title (relating to Counties and Compliance Schedules).	None	§ 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	§ 115.725(n)
PV17.210	EP	R5121-02	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.122(a)(2) § 115.121(a)(2) § 115.122(a)(2)(A) § 60.18	Any vent gas streams affected by §115.121(a)(2) of this title must be controlled properly with a control efficiency of at least 98% or to a VOC concentration of no more than 20 ppmv (on a dry basis corrected to 3.0% oxygen for combustion devices).	[G]§ 115.125 § 115.126(1) § 115.126(1)(B) § 115.126(2) § 115.126(7)	§ 115.126 § 115.126(1) § 115.126(1)(B) § 115.126(2)	None
PV17.210	EP	63FFFF-V02	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a)-Table 1.1.a.ii § 63.11(b) § 63.2450(b) § 63.2455(a) § 63.2455(b) § 63.2455(b)(1) § 63.982(b)	For each Group 1 continuous process vent, the owner or operator must reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare.	[G]§ 63.115(d)(2)(v) § 63.115(d)(3)(iii) § 63.983(b) [G]§ 63.983(b)(1) [G]§ 63.983(b)(2) [G]§ 63.983(b)(3) [G]§ 63.983(c)(1) § 63.983(c)(2)	§ 63.2450(f)(2) § 63.2450(f)(2)(i) § 63.2450(f)(2)(ii) § 63.983(b) [G]§ 63.983(d)(2) § 63.987(b)(1) § 63.987(c) § 63.998(a)(1)	§ 63.2450(f)(2)(ii) § 63.2450(q) § 63.987(b)(1) § 63.997(c)(3) § 63.998(a)(1)(iii)(A) [G]§ 63.998(b)(3) [G]§ 63.999(a)(1) [G]§ 63.999(a)(2)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.983(a)(1) § 63.983(a)(2) § 63.983(d)(1) § 63.983(d)(1)(i) [G]§ 63.983(d)(2) § 63.983(d)(3) § 63.987(a) § 63.987(b)(1) § 63.987(b)(3) [G]§ 63.997(c)(1) § 63.997(c)(3)		§ 63.983(c)(3) § 63.983(d)(1) § 63.983(d)(1)(ii) [G]§ 63.987(b)(3)(i) § 63.987(b)(3)(ii) § 63.987(b)(3)(iii) § 63.987(b)(3)(iv) § 63.987(c) § 63.997(a) [G]§ 63.997(c)(1) § 63.997(c)(2) § 63.997(c)(3) § 63.997(c)(3)(i) § 63.997(c)(3)(ii)	[G]§ 63.998(a)(1)(i) § 63.998(a)(1)(ii) § 63.998(a)(1)(iii)(A) § 63.998(a)(1)(iii)(B) [G]§ 63.998(b)(1) [G]§ 63.998(b)(2) [G]§ 63.998(b)(3) [G]§ 63.998(b)(5) [G]§ 63.998(d)(1) § 63.998(d)(3)(i) § 63.998(d)(3)(ii) § 63.998(d)(5)	§ 63.999(b)(5) § 63.999(c)(1) § 63.999(c)(2)(i) § 63.999(c)(3) § 63.999(c)(6) [G]§ 63.999(c)(6)(i) § 63.999(c)(6)(iv) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2)
REACTORV NT	EP	60RRR-01	VOC/TOC	40 CFR Part 60, Subpart RRR	§ 60.700(c)(8)	Each facility operated with a TOC concentration in the vent stream < 300 ppmv (Method 18) or < 150 ppmv (Method 25A) is exempt, except for §60.704(h) and §60.705(j), (l)(8), and (p).	[G]§ 60.704(h) § 60.705(l)(8)	§ 60.705(j)	§ 60.705(l)(8) § 60.705(p)
SK25.801	CD	R111-01	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period. Non-excessive upset events are subject to the provisions under §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
SK25.801	EP	R5720-01	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(d) § 115.722(d)(1) § 115.722(d)(2) [G]§ 115.725(d)(1) § 115.725(d)(2) § 115.725(d)(2)(A)(i) [G]§ 115.725(d)(2)(A)(ii)	All flares must continuously meet the requirements of 40 CFR § 60.18(c)(2)-(6) and (d) as amended through October 17, 2000 (65 FR 61744) when vent gas containing HRVOC is being routed to the flare.	[G]§ 115.725(d)(1) § 115.725(d)(2) § 115.725(d)(2)(A)(i) [G]§ 115.725(d)(2)(A)(ii) § 115.725(d)(2)(A)(iii) § 115.725(d)(2)(A)(iv)	§ 115.726(a)(1) § 115.726(a)(1)(A) § 115.726(d)(1) § 115.726(d)(10) § 115.726(d)(2) § 115.726(d)(3) § 115.726(d)(4) § 115.726(i) § 115.726(j)(1)	§ 115.725(n) § 115.726(a)(1)(B) [G]§ 115.726(a)(2)

**Applicable Requirements Summary**

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.725(d)(2)(A)(iii) § 115.725(d)(2)(A)(iv) § 115.725(d)(2)(B) § 115.725(d)(2)(B)(i) § 115.725(d)(2)(B)(ii) § 115.725(d)(2)(B)(iii) § 115.725(d)(2)(B)(iii) § 115.725(d)(2)(B)(iv) § 115.725(d)(3) § 115.725(d)(4) § 115.725(d)(5) § 115.725(d)(6) § 115.725(d)(7) § 115.725(k)(1)		115.725(d)(2)(A)(iv) § 115.725(d)(2)(B) § 115.725(d)(2)(B)(i) § 115.725(d)(2)(B)(ii) § 115.725(d)(2)(B)(iii) § 115.725(d)(2)(B)(iv) § 115.725(d)(3) § 115.725(d)(4) § 115.725(d)(5) § 115.725(d)(6) § 115.725(d)(7) § 115.725(k)(1)	§ 115.726(j)(2)	
SK25.801	CD	60A-01	Opacity	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(5) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(6)	None	None
SK25.801	CD	63A-01	Opacity	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(8)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5)	None	None
SV19.863	EU	R5112-01	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(6)(A) § 115.118(a)(7)	None

**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>
						division.			
SV19.864	EU	R5112-01	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(6)(A) § 115.118(a)(7)	None
SV19.911	EU	R5112-01	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(6)(A) § 115.118(a)(7)	None



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**Permit Shield**

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

<b>Unit / Group / Process ID No.</b>	<b>Group / Inclusive Units</b>	<b>Regulation</b>	<b>Basis of Determination</b>
DEBUTSTRVT	N/A	30 TAC Chapter 115, HRVOC Vent Gas	Debutanizer does not emit Highly-Reactive Volatile Organic Compounds (HRVOC).
DEBUTSTRVT	N/A	30 TAC Chapter 115, Vent Gas Controls	The gas stream is directed to a fuel gas system. The definition of "vent" does not apply to this device.
DEBUTSTRVT	N/A	40 CFR Part 63, Subpart FFFF	The gas stream is directed to a fuel gas system. Therefore, the definition of "continuous process vent" does not apply to this device.
DEBUTVENT	N/A	30 TAC Chapter 115, HRVOC Vent Gas	Debutanizer does not emit Highly-Reactive Volatile Organic Compounds (HRVOC)
DEBUTVENT	N/A	30 TAC Chapter 115, Vent Gas Controls	The pressure relief vent will only discharge to flare for safety purposes.
DEBUTVENT	N/A	40 CFR Part 63, Subpart FFFF	The pressure relief vent will only discharge for safety purposes. Therefore, the definition of "Continuous Process Vent", does not apply to this device.
DEETHNERCT	N/A	30 TAC Chapter 115, HRVOC Vent Gas	The pressure relief vent will only discharge to flare for safety purposes.
DEETHNERCT	N/A	30 TAC Chapter 115, Vent Gas Controls	The pressure relief vent will only discharge to flare for safety purposes.
DEETHNERCT	N/A	40 CFR Part 63, Subpart FFFF	The pressure relief vent will only discharge for safety purposes. Therefore, the definition of "Continuous Process Vent", does not apply to this device.
DEETHNEREC	N/A	40 CFR Part 60, Subpart NNN	Compliance with the provisions of this subpart, in the manner described in this paragraph § 63.2535(h), will constitute compliance with 40

### 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
			CFR part 60, subpart DDD, III, NNN, or RRR, as applicable.
DEETHNESTR	N/A	30 TAC Chapter 115, HRVOC Vent Gas	The pressure relief vent will only discharge to flare for safety purposes.
DEETHNESTR	N/A	30 TAC Chapter 115, Vent Gas Controls	The pressure relief vent will only discharge to flare for safety purposes.
DEETHNESTR	N/A	40 CFR Part 63, Subpart FFFF	The pressure relief vent will only discharge for safety purposes. Therefore, the definition of "Continuous Process Vent", does not apply to this device.
DEPROPVNT	N/A	30 TAC Chapter 115, HRVOC Vent Gas	Depropanizer vent emits less than 5% of Highly-Reactive Volatile Organic Compounds (HRVOC).
DEPROPVNT	N/A	30 TAC Chapter 115, Vent Gas Controls	The pressure relief vent will only discharge to flare for safety purposes.
DEPROPVNT	N/A	40 CFR Part 63, Subpart FFFF	The pressure relief vent will only discharge for safety purposes. Therefore, the definition of "Continuous Process Vent", does not apply to this device.
HT16.102	N/A	30 TAC Chapter 115, HRVOC Cooling Towers	The VOC liquids are circulated through the coolers in welded closed loop tube bundles where they are sprayed with water to create a cooling effect; therefore, they are not a source of HRVOC.
HT16.102	N/A	40 CFR Part 63, Subpart FFFF	The wet surface air cooler is not a source of HAPs. Additionally the unit cools process fluids that contain less than 5 percent by weight of HAPs.

### Permit Shield

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

Unit / Group / Process ID No.	Group / Inclusive Units	Regulation	Basis of Determination
HT16.102	N/A	40 CFR Part 63, Subpart Q	The source is not an industrial process cooling tower operated with chromium based water treatment chemicals.
HT16.118	N/A	30 TAC Chapter 115, HRVOC Cooling Towers	The cooling tower does not emit highly-reactive volatile organic compound (HRVOC).
HT16.118	N/A	40 CFR Part 63, Subpart FFFF	The cooling tower is not a source of HAPs.
HT16.118	N/A	40 CFR Part 63, Subpart Q	The source is not an industrial process cooling tower operated with chromium based water treatment chemicals.
HT16104211	N/A	30 TAC Chapter 115, HRVOC Cooling Towers	The VOC liquids are circulated through the coolers in welded closed loop tube bundles where they are sprayed with water to create a cooling effect; therefore, they are not a source of HRVOC.
HT16104211	N/A	40 CFR Part 63, Subpart FFFF	The wet surface air cooler is not a source of HAPs. Additionally the unit cools process fluids that contain less than 5 percent by weight of HAPs.
HT16104211	N/A	40 CFR Part 63, Subpart Q	The source is not an industrial process cooling tower operated with chromium based water treatment chemicals.
LO-1	N/A	40 CFR Part 63, Subpart FFFF	Definition of "Group 1 transfer rack", does not apply for this loading operations.
LO-2	N/A	40 CFR Part 63, Subpart FFFF	Definition of "Group 1 transfer rack", does not apply for this loading operations.
PDHII-MCPU	N/A	40 CFR Part 60, Subpart NNN	Compliance with the provisions of this subpart, in the manner described in this paragraph §

### 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
			63.2535(h), will constitute compliance with 40 CFR part 60, subpart DDD, III, NNN, or RRR, as applicable.
PPSPVENT	N/A	30 TAC Chapter 115, HRVOC Vent Gas	The pressure relief vent will only discharge to flare for safety purposes.
PPSPVENT	N/A	30 TAC Chapter 115, Vent Gas Controls	The pressure relief vent will only discharge to flare for safety purposes.
PPSPVENT	N/A	40 CFR Part 63, Subpart FFFF	The pressure relief vent will only discharge for safety purposes. Therefore, the definition of "Continuous Process Vent", does not apply to this device.
REACTORVNT	N/A	30 TAC Chapter 115, HRVOC Vent Gas	The gas stream is directed to a fuel gas system. The definition of "vent" does not apply to this device.
REACTORVNT	N/A	30 TAC Chapter 115, Vent Gas Controls	The gas stream is directed to a fuel gas system. The definition of "vent" does not apply to this device.
REACTORVNT	N/A	40 CFR Part 63, Subpart FFFF	The gas stream is directed to a fuel gas system. Therefore, the definition of "continuous process vent" does not apply to this device.
SV19.863	N/A	40 CFR Part 60, Subpart Kb	The tank has a capacity greater than or equal to 151 cubic meters and stores a liquid with a maximum true vapor pressure less than 3.5 kPa.
SV19.863	N/A	40 CFR Part 63, Subpart FFFF	The tank does not store liquids that contain organic HAP and/or hydrogen halide and halogen HAP.
SV19.864	N/A	40 CFR Part 60, Subpart Kb	The tank has a capacity greater than or equal to

**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
			151 cubic meters and stores a liquid with a maximum true vapor pressure less than 3.5 kPa.
SV19.864	N/A	40 CFR Part 63, Subpart FFFF	The tank does not store liquids that contain organic HAP and/or hydrogen halide and halogen HAP.
SV19.911	N/A	40 CFR Part 60, Subpart Kb	The tank has a capacity greater than or equal to 151 cubic meters and stores a liquid with a maximum true vapor pressure less than 3.5 kPa.
SV19.911	N/A	40 CFR Part 63, Subpart FFFF	The tank does not store liquids that contain organic HAP and/or hydrogen halide and halogen HAP.

**New Source Review Authorization References**

**New Source Review Authorization References ..... 78**

**New Source Review Authorization References by Emission Unit ..... 79**

**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.: GHGPSDTX193M1	Issuance Date: 06/08/2023
PSD Permit No.: PSDTX1558M1	Issuance Date: 06/08/2023
<b>Nonattainment (NA) Permits</b>	
NA Permit No.: N272M1	Issuance Date: 06/08/2023
<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.: 156320	Issuance Date: 06/08/2023
<b>Permits By Rule (30 TAC Chapter 106) for the Application Area</b>	
Number: 106.511	Version No./Date: 09/04/2000



**New Source Review Authorization References by Emissions Unit**

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

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
DEBUTSTRVT	DEBUTANIZER STRIPPER VENT	156320, PSDTX1558M1, N272M1
DEBUTVENT	DEBUTANIZER VENT	156320, PSDTX1558M1, N272M1
DEETHNERCT	DEETHANIZER RECTIFIER VENT	156320, PSDTX1558M1, N272M1
DEETHNEREC	DEETHANIZER RECEIVER VENT	156320, PSDTX1558M1, N272M1
DEETHNESTR	DEETHANIZER STRIPPER VENT	156320, PSDTX1558M1, N272M1
DEPROPVNT	DEPROPANIZER VENT	156320, PSDTX1558M1, N272M1
FUG-NGAS	NATURAL GAS FUGITIVES	156320, GHGPSDTX193M1, PSDTX1558M1, N272M1
FUG-PDH2	PROCESS AREA FUGITIVES	156320, GHGPSDTX193M1, PSDTX1558M1, N272M1
FUG-SCR	AQUEOUS AMMONIA FUGITIVES	156320, PSDTX1558M1, N272M1
GEN-001	EMERGENCY GENERATOR	106.511/09/04/2000
GEN-002	EMERGENCY GENERATOR	106.511/09/04/2000
GEN-003	EMERGENCY GENERATOR	106.511/09/04/2000
HR15.101	CHARGE HEATER + NO. 1 INTERHEATER STACK	156320, GHGPSDTX193M1, PSDTX1558M1, N272M1
HR15.102	NO. 2 INTERHEATER + NO. 3 INTERHEATER STACK	156320, GHGPSDTX193M1, PSDTX1558M1, N272M1
HR15.601	HOT OIL HEATER	156320, GHGPSDTX193M1, PSDTX1558M1, N272M1
HT16.102	CIRCULATING WASH OIL COOLER WSAC	156320, PSDTX1558M1, N272M1
HT16.118	COOLING TOWER	156320, PSDTX1558M1, N272M1

**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**
HT16104211	WSAC HT16.104/211	156320, PSDTX1558M1, N272M1
LO-1	SPENT CAUSTIC TRUCK LOADING	156320, PSDTX1558M1, N272M1
LO-2	WASTE WATER TRUCK LOADING	156320, PSDTX1558M1, N272M1
PDHII-MCPU	PDH II MCPU	156320, PSDTX1558M1, N272M1
PPSPVENT	P/P SPLITTER TOWE	156320, PSDTX1558M1, N272M1
PV17.210	HEAT PUMP COMPRESSOR STAGE 1 SUCTION DRUM	156320, PSDTX1558M1, N272M1
REACTORVNT	REACTOR VENT	156320, PSDTX1558M1, N272M1
SK25.801	FLARE	156320, GHGPSDTX193M1, PSDTX1558M1, N272M1
SV19.863	SPENT CAUSTIC TANK	156320, PSDTX1558M1, N272M1
SV19.864	SPENT CAUSTIC TANK	156320, PSDTX1558M1, N272M1
SV19.911	WASTE WATER TANK	156320, PSDTX1558M1, N272M1

\*\*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 ..... 82**

## 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 ..... 84**

**Major NSR Summary Table**

Permit Number: 156320, PSDTX1558M1 and N272M1					Issuance Date: June 8, 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
HR15.101	Charge Heater + No. 1 Interheater Stack	NO <sub>x</sub>	8.01	17.54	5, 6, 7, 14, 24, 25, 26, 27, 30	5, 14, 24, 26, 27, 36	5, 24, 26, 27, 30
		CO	39.47	86.44			
		VOC	2.88	12.61			
		SO <sub>2</sub>	12.46	14.19			
		PM	3.98	17.42			
		PM <sub>10</sub>	3.98	17.42			
		PM <sub>2.5</sub>	3.98	17.42			
		NH <sub>3</sub>	2.40	10.51			
HR15.101	Charge Heater + No. 1 Interheater Stack MSS	NO <sub>x</sub>	21.36	---	7	18, 36	
HR15.102	No. 2 Interheater + No. 3 Interheater Stack	NO <sub>x</sub>	6.60	14.45	5, 6, 7, 14, 24, 25, 26, 27, 30	5, 14, 24, 26, 27, 36	5, 24, 26, 27, 30
		CO	32.52	71.22			
		VOC	2.37	10.39			
		SO <sub>2</sub>	10.27	11.69			
		PM	3.28	14.36			

**Major NSR Summary Table**

Permit Number: 156320, PSDTX1558M1 and N272M1					Issuance Date: June 8, 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>	3.28	14.36			
		PM <sub>2.5</sub>	3.28	14.36			
		NH <sub>3</sub>	1.98	8.66			
HR15.102	No. 2 Interheater + No. 3 Interheater Stack MSS	NO <sub>x</sub>	17.60	---	7	18, 36	
HR15.601	Hot Oil Heater	NO <sub>x</sub>	2.36	2.94	5, 6, 7, 14, 24, 25, 26, 27, 30	3, 5, 14, 24, 26, 27, 36	3, 5, 24, 26, 27, 30
		CO	11.60	14.50			
		VOC	0.85	2.12			
		SO <sub>2</sub>	3.66	2.38			
		PM	1.17	2.92			
		PM <sub>10</sub>	1.17	2.92			
		PM <sub>2.5</sub>	1.17	2.92			
		NH <sub>3</sub>	0.71	1.76			
HR15.601	Hot Oil Heater MSS	NO <sub>x</sub>	6.28	---	7	18, 36	

**Major NSR Summary Table**

Permit Number: 156320, PSDTX1558M1 and N272M1					Issuance Date: June 8, 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
HT16.102	Circulating Wash Oil Cooler WSAC	PM	0.40	1.75	15	15, 36	
		PM <sub>10</sub>	0.17	0.76			
		PM <sub>2.5</sub>	<0.01	<0.01			
HT16.118	Cooling Tower	PM	0.06	0.24	31	31, 36	
		PM <sub>10</sub>	0.02	0.11			
		PM <sub>2.5</sub>	<0.01	<0.01			
HT16104211	WSAC HT16.104/211	PM	1.35	5.92	15	15, 36	
		PM <sub>10</sub>	0.59	2.59			
		PM <sub>2.5</sub>	<0.01	0.01			
FUG-PDH2	Process Area Fugitives (5)	VOC	3.51	15.38	4, 16	4, 16, 36	4
FUG-NGAS	Natural Gas Fugitives (5)	VOC	0.01	0.06	16	16,36	
FUG-SCR	Aqueous Ammonia Fugitives (5)	NH <sub>3</sub>	0.01	0.03	11, 17	17, 36	
SV19.863	Spent Caustic Tank 1	VOC	0.85	0.07	10	10, 36	
SV19.864	Spent Caustic Tank 2	VOC	0.85	0.09	10	10, 36	



**Major NSR Summary Table**

Permit Number: 156320, PSDTX1558M1 and N272M1					Issuance Date: June 8, 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
SV19.911	Waste Water Tank	VOC	0.85	0.03	10	10, 36	
LO-1	Spent Caustic Truck Loading	VOC	0.23	0.08	12	12, 36	
LO-2	Waste Water Truck Loading	VOC	0.23	0.08	12	12, 36	
LO-3	Spent Solvent/C5+ Pressure Truck Loading	VOC	0.01	<0.01	13		
SE29.751	CCR Scrubber Vent	SO <sub>2</sub>	0.50	2.21	9, 14, 24	9, 14, 24, 36	24
		PM	0.15	0.68			
		PM <sub>10</sub>	0.15	0.68			
		PM <sub>2.5</sub>	0.15	0.68			
		HCl	0.25	1.09			
		Cl <sub>2</sub>	0.22	0.98			
REACTOR1-4	Reactor 1/2/3/4 Catalyst Transfers	PM	0.30	0.07	14	14, 36	
		PM <sub>10</sub>	0.14	0.03			
		PM <sub>2.5</sub>	0.02	<0.01			

**Major NSR Summary Table**

Permit Number: 156320, PSDTX1558M1 and N272M1					Issuance Date: June 8, 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
SHP	SHP Reactor Catalyst Transfer	PM	0.44	0.02	14	14, 36	
		PM <sub>10</sub>	0.21	0.01			
		PM <sub>2.5</sub>	0.03	<0.01			
CATFINE	Catalyst Drum Filling	PM	<0.01	<0.01	14	14, 36	
		PM <sub>10</sub>	<0.01	<0.01			
		PM <sub>2.5</sub>	<0.01	<0.01			
SK25.801	Flare (Pilot + Normal)	NO <sub>x</sub>	104.69	22.81	3, 4, 5, 8	3, 4, 5, 8, 36	3, 4, 5
		CO	189.03	52.99			
		VOC	34.29	24.97			
		SO <sub>2</sub>	8.85	1.33			
SK25.801	Flare (MSS)	NO <sub>x</sub>	810.57	6.93	18, 20, 21	18, 20, 21, 36	
		CO	1,618.21	12.84			
		VOC	2,913.77	16.45			
		SO <sub>2</sub>	34.95	0.07			
MSS-PDH2	MSS Equipment Clearing	VOC	198.44	0.83	18, 19, 20, 21, 22	18, 19, 20, 21, 22, 36	

### Major NSR Summary Table

Permit Number: 156320, PSDTX1558M1 and N272M1					Issuance Date: June 8, 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
MSS-P2VAC	MSS Vacuum Trucks	VOC	0.51	0.03	4, 18, 22	4, 18, 22, 36	4

(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

HCl - hydrogen chloride

Cl<sub>2</sub> - chlorine gas

(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: GHGPSDTX193M1			Issuance Date: June 8, 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
HR15.101	Charge Heater + No. 1 Interheater Stack	CO <sub>2</sub> (5)	273,523	33	32, 33, 34, 35, 36	33
		CH <sub>4</sub> (5)	5.15			
		N <sub>2</sub> O (5)	0.52			
		CO <sub>2</sub> e	273,806			
HR15.102	No. 2 Interheater + No. 3 Interheater Stack	CO <sub>2</sub> (5)	225,375	33	32, 33, 34, 35, 36	33
		CH <sub>4</sub> (5)	4.25			
		N <sub>2</sub> O (5)	0.42			
		CO <sub>2</sub> e	225,608			
HR15.601	Hot Oil Heater	CO <sub>2</sub> (5)	45,895	33	32, 33, 34,35, 36	33
		CH <sub>4</sub> (5)	0.86			
		N <sub>2</sub> O (5)	0.09			
		CO <sub>2</sub> e	45,942			
SE29.751	CCR Scrubber Vent	CO <sub>2</sub> (5)	6,652	33	32, 33, 34,35, 36	33
		CO <sub>2</sub> e	6,652			
FUG-PDH2	Process Area Fugitives (5)	CH <sub>4</sub> (5)	0.19	33	32, 33, 34,35, 36	33
		CO <sub>2</sub> e	4.71			
FUG-NGAS	Natural Gas Fugitives (5)	CO <sub>2</sub> (5)	0.08	33	32, 33, 34, 35, 36	33
		CH <sub>4</sub> (5)	1.59			
		CO <sub>2</sub> e	40			

**Major NSR Summary Table**

Permit Number: GHGPSDTX193M1			Issuance Date: June 8, 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
SK25.801	Flare (Pilot + Normal)	CO <sub>2</sub> (5)	42,573	33	32,33,34,35,36	33
		CH <sub>4</sub> (5)	38.46			
		N <sub>2</sub> O (5)	0.07			
		CO <sub>2</sub> e	43,555			
SK25.801	Flare (MSS)	CO <sub>2</sub> (5)	6,082	33	32,33,34,35,36	33
		CH <sub>4</sub> (5)	6.16			
		N <sub>2</sub> O (5)	0.01			
		CO <sub>2</sub> e	6,239			

- (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  
 N<sub>2</sub>O - nitrous oxide  
 CH<sub>4</sub> - methane  
 HFCs - hydrofluorocarbons  
 PFCs - perfluorocarbons  
 SF<sub>6</sub> - sulfur hexafluoride  
 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*  
**Enterprise Products Operating LLC**  
*Authorizing the Construction and Operation of*  
**Enterprise Mont Belvieu Complex**  
*Located at Mont Belvieu, Chambers County, Texas*  
*Latitude 29.856111 Longitude -94.912222*

Permits: 156320, GHGPSDTX193M1, N272M1 and  
PSDTX1558M1

Amendment Date: June 8, 2023

Expiration Date: January 24, 2030

For the Commission

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

operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources-- Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]<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 156320, PSDTX1558M1, N272M1, GHGPSDTX193M1

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 Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.
  - C. Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.
  - D. Subpart RRR, Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes.
4. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61:
  - A. Subpart A, General Provisions.
  - B. Subpart FF, National Emission Standard for Benzene Waste Operations.
5. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (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 FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.
  - C. Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial for Institutional, Commercial, and Industrial Boilers and Process Heaters.

### Emission Standards and Operational Specifications

6. The natural and fuel gas used at the site shall contain no more than 5 grains of sulfur per 100 dry standard cubic feet (dscf) of fuel at any time, and shall contain no more than 1.3 grains of sulfur per 100 dscf on an annual basis. The natural and fuel gas shall be sampled every 6 months to determine total sulfur and net heating value. Test results from the fuel supplier may be used to satisfy this requirement.
7. Emissions from Charge Heater + No. 1 Interheater Stack, No. 2 Interheater + No. 3 Interheater Stack, and Hot Oil Heater shall not exceed the following:
  - A. 0.015 lb NO<sub>x</sub>/MMBtu (HHV), hourly average, (except during startup and shutdown),
  - B. 0.0075 lb NO<sub>x</sub>/MMBtu (HHV), annual average,
  - C. 100 ppmvd CO, corrected to 3% oxygen (O<sub>2</sub>), hourly average (except during startup and shutdown),
  - D. 50 ppmvd CO, corrected to 3% O<sub>2</sub>, annual average, and
  - E. 10 ppmvd NH<sub>3</sub>, corrected to 3% O<sub>2</sub>, hourly average (except during startup and shutdown).
8. The flare (EPN: SK25.801) shall be designed and operated in accordance with the following requirements:
  - A. The flare systems shall be designed such that the combined assist natural gas and waste stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity at all times when emissions may be vented to them.

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office to demonstrate compliance with these requirements.
  - B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple, infrared monitor, or ultraviolet monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.
  - C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. This shall be ensured by the use of air assist to the flare.
  - D. The permit holder shall install a continuous flow monitor and composition analyzer that provide a record of the vent stream flow and composition to the flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition (or Btu content) shall be recorded each hour.

The monitors shall be calibrated or have a calibration check performed on an annual basis to meet the following accuracy specifications: the flow monitor shall be ±5.0%, temperature monitor shall be ±2.0% at absolute temperature, and pressure monitor shall be ±5.0 mm Hg.

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

The monitors and analyzers shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12-month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 CFR §§60.18(f)(3) and 60.18(f)(4) shall be recorded at least once every hour. Hourly mass emission rates shall be determined and recorded.

9. Absorber CCR Scrubber shall operate with no less than 99% removal efficiency (RE) for HCl, 98% RE for Cl<sub>2</sub>, and 90% RE for SO<sub>2</sub>, on an hourly average as demonstrated by the stack test performed in accordance with Special Condition No. 24.
  - A. The recirculating caustic solution of the absorber shall be maintained at or above a pH of 7 prior to the first stack test performed in accordance with Special Condition No. 24, and at a minimum of 0.1 weight percent caustic solution. After the stack test has been completed, the pH shall be at or above the average pH maintained during the last satisfactory stack 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.
  - B. The recirculating caustic solution shall be analyzed for caustic weight percent once every 24-hours. Fresh caustic shall be charged to the scrubber should either of the following conditions exist:
    - (1) reading a pH less than 7, or minimum pH maintained during last satisfactory stack test, for the caustic solution in circulation, or
    - (2) Upon reading less than 0.1 weight percent caustic for the caustic solution in circulation.
  - C. As an alternative to Condition A, the oxidation-reduction potential (ORP) of the recirculating caustic solution shall be maintained at or below 30 mV prior to the first stack test performed in accordance with Special Condition No. 24. After the first satisfactory stack test, the ORP shall be at or below that maintained during the last satisfactory stack test. The ORP shall be monitored according to ASTM D1498 or equivalent, and recorded at least once a minute, and sufficient buffer (sodium bisulfite) shall be added to prevent the ORP from going above 30 mV. The ORP 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 ± 100 mV.
  - D. The minimum liquid flow to the absorber shall be 15 gpm prior to the first stack test performed in accordance with Special Condition No. 24. After the first satisfactory stack test, the flow shall be at least equal to that maintained during the last satisfactory stack test. The circulation rate shall be monitored and recorded at least once an hour. The flow monitoring

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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.

- E. Quality assured (or valid) data must be generated when the 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 scrubber operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgement and the methods used recorded.
  - F. The date and time of each caustic solution analysis (Special Condition Nos. 9A and 9B), ORP monitoring (Special Condition No. 9C) and circulation rate monitoring (Special Condition No. 9D) shall be noted in the operator's log or equivalent and made available to representatives of the TCEQ or any air pollution control program having jurisdiction, upon request.
10. Fixed roof storage tanks shall meet the following requirements:
- A. Storage tanks (Spent Caustic Tank, Spent Caustic Tank 2, and Waste Water Tank) service is limited to storing the following liquid(s): spent caustic and wastewater.
  - B. The true vapor pressure of any liquid stored at the PDH II unit in an atmospheric tank shall not exceed 0.5 psia.
  - C. Except for labels, logos, etc. not to exceed 15 percent of the tank total surface area, uninsulated tank exterior surfaces exposed to the sun shall be white or unpainted aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
  - D. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar year. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, and VOC throughput for the previous year.  
  
Emissions from tanks shall be calculated using the methods that were used to determine the MAERT limits in the permit application Form PI-1 dated March 2019 and February 2022. Sample calculations from the application shall be attached to a copy of this permit at the plant site.
11. The 19% aqueous ammonia used for the SCR shall be stored in a pressurized tank. The pressurized ammonia tank shall be equipped with a pressure safety valve equipped with a rupture disc upstream. A pressure-sensing device shall be installed between the relief valve and rupture disc to monitor the disc integrity.  
  
The fill level of the aqueous ammonia storage tank shall not exceed a level that is in line with good engineering practices. In addition, sealless pumps shall be used in all piping handling aqueous ammonia.
12. Atmospheric loading operations at the facility shall comply with the following requirements:

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- A. Submerged loading shall be performed at two spots using flexible hoses, and is limited to the hourly and annual rates as represented in the permit application dated March 2019. Loading may occur at both spots simultaneously.
  - B. All lines and connectors shall be visually inspected for any defects prior to hookup. Lines and connectors that are visibly damaged shall be removed from service. Operations shall cease immediately upon detection of any liquid leaking from the lines or connections.
  - C. Materials loaded are restricted to spent caustic and waste water. VOC vapor pressure of any material loaded shall not exceed 0.02 psia.
  - D. The permit holder shall maintain and update a monthly loading record which includes gallons of material loaded from all loading operations over the previous rolling 12-month period.
13. Pressurized tank truck loading operations are subject to the following requirements
- A. Loading line disconnects are limited to the hourly and annual limits as represented in the permit application dated March 2019.
  - B. Each tank truck shall be leak checked and certified annually in accordance with 49 CFR 180.407 Department of Transportation (DOT), for pressure tank trucks rated at 15 pounds per square inch gage (psig) or greater. The permit holder shall not allow a tank truck to be filled unless it has passed a leak-tight test within the past year as evidenced by a certificate which shows the date the tank truck last passed the leak-tight test required by this condition and the identification number of the tank truck.
14. Opacity and visible emissions limits shall apply, as follows:
- A. Opacity of emissions from each heater and CCR Scrubber Vent shall not exceed 5 percent averaged over a six-minute period.
  - B. Visible emissions from catalyst handling operations (Reactors 1 through 4 Catalyst Transfer, SHP Reactor Catalyst Transfer, and Catalyst Drum Filling) shall not exceed 30 seconds in any six-minute period.
  - C. The holder of this permit shall conduct a quarterly visible emissions determination to demonstrate compliance with the opacity limitations specified in Paragraph A. This visible emissions determination shall be performed:
    - (1) during normal plant operations,
    - (2) for a minimum of six minutes,
    - (3) approximately perpendicular to plume direction,
    - (4) with the sun behind the observer (to the extent practicable), and
    - (5) at least two stack heights, but not more than five stack heights, from the emission point.
  - D. If visible emissions are observed as determined according to Paragraph C, the owner or operator shall:
    - (1) Take immediate action (as appropriate) to eliminate visible emissions. The corrective action shall be documented within 24 hours of completion; or

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- (2) Determine opacity using 40 CFR Part 60, Appendix A, Test Method 9. If the opacity limit is exceeded, the owner or operation shall take immediate action (as appropriate) to reduce opacity to within the permitted limit. The corrective action shall be documented within 24 hours of completion.
- E. The holder of this permit shall conduct a quarterly visible fugitive emissions determination to demonstrate compliance with the visible emissions limitation specified in Paragraph B. This visible fugitive emissions determination shall be performed:
- (1) during normal plant operations,
  - (2) for a minimum of six minutes,
  - (3) approximately perpendicular to plume direction,
  - (4) with the sun behind the observer (to the extent practicable),
  - (5) at least 15 feet, but not more than 0.25 mile, from the plume, and
  - (6) in accordance with EPA 40 CFR Part 60, Appendix A, Test Method 22, except where stated otherwise in this condition.
- F. If visible fugitive emissions are observed for more than 30 seconds in any six-minute period as determined according to Paragraph E, the owner or operator shall take immediate action (as appropriate) to eliminate the visible fugitive emissions. The corrective action shall be documented within 24 hours of completion.

**Wet Surface Air Cooler (WSAC)**

15. The wet surface air coolers (Circulating Wash Oil Cooler WSAC (EPN HT16.102) and WSAC HT16.104/211 (EPN HT16104211)) shall be operated and monitored in accordance with the following:
- A. The wet surface air coolers shall each be equipped with drift eliminators having manufacturer's design assurance of 0.001% drift or less. Drift eliminators shall be maintained and inspected at least every three years or during scheduled maintenance on the equipment that requires a shutdown. The permit holder shall maintain records of all inspections and repairs.
  - B. Total dissolved solids (TDS) shall not exceed 3500 parts per million by weight (ppmw). Dissolved solids in the cooling water drift are considered to be emitted as PM, PM<sub>10</sub>, and PM<sub>2.5</sub> as represented in the permit application calculations.
  - C. The cooling water used in the wet surface air coolers shall be analyzed for parameters related to particulate emissions using one of the following methods:
    - (1) Cooling water shall be sampled at least once per day for total dissolved solids (TDS); or
    - (2) TDS monitoring may be reduced to weekly if conductivity is monitored daily and TDS is calculated using a ratio of TDS-to-conductivity (in ppmw per  $\mu\text{mho/cm}$  or ppmw/siemens). The ratio of TDS-to-conductivity shall be determined by concurrently monitoring TDS and conductivity on a weekly basis. The permit holder may use the average of two consecutive TDS-to-conductivity ratios to calculate daily TDS; or

- (3) TDS monitoring may be reduced to quarterly if conductivity is monitored daily and TDS is calculated using a correlation factor established for the wet surface air cooler. The correlation factor shall be the average of nine consecutive weekly TDS-to-conductivity ratios determined using C(2) above provided the highest ratio is not more than 10% larger than the smallest ratio.
  - (4) The permit holder shall validate the TDS-to-conductivity correlation factor once each calendar quarter. If the ratio of concurrently sampled TDS and conductivity is more than 10% higher or lower than the established factor, the permit holder shall increase TDS monitoring to weekly until a new correlation factor can be established.
- D. Cooling water sampling shall be representative of the wet surface air cooler feed water and shall be conducted using approved methods.
- (1) The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, or SM 2540 C [SM - 19th edition of Standard Methods for Examination of Water]. Water samples should be capped upon collection, and transferred to a laboratory area for analysis.
  - (2) The analysis method for conductivity shall be either ASTM D1125-95A (field or routine laboratory testing) or ASTM D1125-95B (continuous monitor). The analysis may be conducted at the sample site or with a calibrated process conductivity meter. If a conductivity meter is used, it shall be calibrated at least annually. Documentation of the method and any associated calibration records shall be maintained.
  - (3) Alternate sampling and analysis methods may be used to comply with D(1) and D(2) with written approval from the TCEQ Regional Director.
  - (4) Records of all instrument calibrations and test results and process measurements used for the emission calculations shall be retained.
- E. Emission rates of PM, PM<sub>10</sub> and PM<sub>2.5</sub> shall be calculated using the measured TDS and the ratio or correlation of TDS to conductivity measurements, the design drift rate and the daily maximum and average actual cooling water circulation rate for the short term and annual average rates. Alternately, the design maximum circulation rate may be used for all calculations. Emission records shall be updated monthly.

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

16. Except as may be provided for in the Special Conditions of this permit, the following requirements apply to the above-referenced equipment:
- A. The requirements of paragraphs 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. In addition, all connectors shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program in accordance with items F thru J of this special condition.

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

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

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

The percent of connectors leaking shall be determined using the following formula:

$$(C_l + C_s) \times 100 / C_t = C_p$$

Where:

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

$C_s$  = the number of connectors for which repair has been delayed and are listed on the facility shutdown log.

Ct = the total number of connectors in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including non-accessible and unsafe to monitor connectors.

Cp = the percentage of leaking connectors for the monitoring period.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment 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 by the end of the 72 hours period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program. Non accessible valves shall be monitored by leak-checking for fugitive emissions at least annually using an approved gas analyzer with a directed maintenance program. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown. A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph.

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

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

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

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

- H. Damaged or leaking valves, connectors, compressor seals, pump seals, and agitator seals found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
- I. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates, times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- J. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), and does not constitute approval of alternative standards for these regulations.
- K. In lieu of the monitoring frequency specified in paragraph F, valves in gas and light liquid service may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

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

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

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

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

Where:

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

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

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

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

- M. Any component found to be leaking by physical inspection (i.e., sight, sound, or smell) shall be repaired or monitored with an approved gas analyzer within 15 days to determine whether the component is leaking in excess of 500 ppmv of VOC. If the component is found to be leaking in excess of 500 ppmv of VOC, it shall be subject to the repair and replacement requirements contained in this special condition.

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

17. 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 TCEQ upon request.

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

18. This permit authorizes the emissions from the facilities 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 vacuum trucks used to support planned MSS activities at permanent site facilities and controlled recovery systems. Emissions from vacuum trucks are authorized provided the vacuum trucks (a) do not remain on the plant site for more than 12 consecutive months, (b) are used solely to support planned MSS activities at the permanent site facilities authorized in this permit, 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.

19. MSS for fixed roof storage tanks shall comply with the following:

- A. The tank shall not be opened or ventilated without control, except as allowed below until one of the criteria in part B of this condition is satisfied.

Minimize air circulation in the tank vapor space.

- (a) One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.

- (b) Access points shall be closed when not in use

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- B. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.
- (1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.
  - (2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:
    - (a) Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.
    - (b) Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).
    - (c) Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition No. 21.
  - (3) No standing liquid verified through visual inspection.

The permit holder shall maintain records to document the method used to release the tank.

- C. The occurrence of each fixed roof tank MSS event and the associated emissions shall be recorded and the rolling 12-month tank MSS emissions shall be updated on a monthly basis. These records shall include at least the following information:
- (1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;
  - (2) for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:
    - (a) start and completion of controlled degassing, and total volumetric flow,
    - (b) all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,
    - (c) if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,

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- (3) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events D(2)(a) and D(2)(c) with the data and methods used to determine it.
20. Process units and facilities, with the exception of those identified in 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.
    - (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 21. 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.

21. 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:  
$$\text{VOC Concentration} = \text{Concentration as read from the instrument} \times \text{RF}$$

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 standard of propane, propylene, or the gas being cleared from the vessel at 25% of the lower explosive limit (LEL) for the gas standard. 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 propane, propylene, or the gas being cleared from the vessel. 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 50% of the LEL for methane may be used for calibration and functionality tests provided that the LEL response is corrected to the LEL for gas that was in the vessel or a reading of 0% LEL is determined.
22. 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 21.A or 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 do not apply.
23. 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.

#### **Initial Demonstration of Compliance**

24. 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 three heater stacks equipped with SCR (EPNs: HR15.101, HR15.102, and HR15.601) and the CCR Scrubber to demonstrate compliance with the MAERT and other requirements found Special Condition Nos. 7 and 9. 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 U.S. Environmental Protection Agency (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.

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- (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 during the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

B. Air contaminants to be tested for include (but are not limited to):

- (1) From each of the three main heater stacks (EPNs: HR15.101, HR15.102, and HR15.601): NO<sub>x</sub>, CO, and NH<sub>3</sub>.
- (2) From the CCR Scrubber Vent stack: SO<sub>2</sub>, HCl, and Cl<sub>2</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 and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.

D. The heaters being sampled shall operate at maximum firing rates 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 heater firing rates or parameters that affect emissions from the heaters are greater than that recorded during the test period, or if conditions that increase air contaminate loading to the CCR Scrubber or the permit holder wants to operate the scrubber at a lower pH, higher ORP, or lower circulation rate 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 the heaters 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.

### Continuous Demonstration of Compliance

25. The permit holder shall install and operate a fuel flow meter to measure the fuel gas usage for each heater. The monitored data shall be reduced to an hourly average flow rate at least once every 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. The permit holder may monitor stack exhaust flow using the flow monitoring specifications of 40 Code of Federal Regulations (CFR) Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.
26. The permit holder shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) to measure and record the in-stack concentration of NO<sub>x</sub>, CO, NH<sub>3</sub>, and O<sub>2</sub> from EPNs: HR15.101, HR15.102, and HR15.601. Monitoring as specified in Special Condition No. 27 may be substituted for an NH<sub>3</sub> CEMS.
  - 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, Title 40 Code of Federal Regulation Part 60 (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. Section 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 semi-annually, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.
    - (2) For the NH<sub>3</sub>, CO, NO<sub>x</sub>, and O<sub>2</sub> CEMS, unless Appendix F is otherwise required by NSPS, state law or regulation, or permit or approval, in lieu of the requirements of 40 CFR Part 60 Appendix F, Section 5.1.1, 5.1.3, and 5.1.4, the permit holder may conduct:
      - (a) Either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) once every three years; and
      - (b) A Cylinder Gas Audit (CGA) each calendar quarter in which the RAA or RATA is not performed.
    - (3) 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 CGAs 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 one-hour 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 pounds per hour and lbs/MMBtu at least once every week as follows:
  - D. The measured hourly average concentration from the CEMS shall be multiplied by the flow rate measured during the latest stack test performed in accordance with Special Condition No. 24 to determine the hourly emission rate or by using "F" Factors for Various Fuels under 40 CFR Part 60, Appendix A, Method 19. Equivalent data such as measured fuel flow rates or measured effluent flow may be used to determine the flow rate in lieu of the stack test flow rate. 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.
  - F. Quality-assured (or valid) data must be generated when the heaters are operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that each heater 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.
27. The NH<sub>3</sub> concentration as specified in Special Condition No. 26 shall be tested or calculated according to one of the methods listed below and shall be tested or calculated according to frequency listed below.
- A. Install, calibrate, maintain, and operate, as specified under Special Condition No. 26, a CEMS to measure and record the concentrations of NH<sub>3</sub>. The NH<sub>3</sub> concentrations shall be corrected and reported in accordance with Special Condition No. 7.
  - B. 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 unit and when operation of the SCR unit has 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 Special Condition No. 7.

If sorbent or stain tube testing indicates an NH<sub>3</sub> slip concentration which exceeds 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

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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 Phenol 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 Special Condition No. 7.

- C. Install, calibrate, maintain, and operate, as specified under Special Condition No. 27, 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. 26). 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.
- D. 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 Special Condition No. 7.
- E. Any other method used for measuring NH<sub>3</sub> slip shall require prior approval from the TCEQ Regional Director.

## Netting and Offsets

- 28. This Nonattainment New Source Review (NNSR) permit is issued/approved based on the requirement that the permit holder offset the project emission increase for facilities authorized by this permit prior to the commencement of operation, through participation in the TCEQ Emission Banking and Trading (EBT) Program in accordance with the rules in 30 TAC Chapter 101, Subchapter H.
- 29. The permit holder shall use 101.1 tons per year (tpy) of VOC credits to offset the 84.22 tpy VOC project emissions increase for the facilities authorized in APD project number 339491 at a ratio of 1.2 to 1.0. **(6/23)**
  - A. The permit holder shall use 101.1 tpy of VOC ECs from TCEQ credit certificate numbers 3800, 3801, 3551, 3581, 3661, 3836, 3837, 3838, 3839, 3840, 3841, 3843, 3844, 3847, 3848, 3849, 3871, 3872, 3873, and 3946 (EBT Project Numbers 416371, 416399, 416441, 416467, and 416926) to satisfy 101.1 tpy of the VOC offset requirement under Condition 29.
  - B. Prior to commencement of operation, the permit holder shall obtain approval from the TCEQ EBT Program for the credits being used and then submit a permit alteration or amendment request to the TCEQ Air Permits Division (and copy the TCEQ Regional Office) to identify approved credits by TCEQ credit certificate number.
- 30. The permit holder shall use 77.6 tpy of NO<sub>x</sub> credits to offset the 64.69 tpy NO<sub>x</sub> project emissions increase for the facilities authorized in APD project number 339491 at a ratio of 1.2 to 1.0. **(6/23)**
  - A. The permit holder shall use 77.6 tpy of NO<sub>x</sub> ECs from TCEQ credit certificate numbers 3423, 3470, 3595, 3687, 3584, 3610, 3774, 3471, 3604, 3611, 3660, 3853, 3854, and 4089 (EBT Project Numbers 414405, 415591, 415900, 415922, 416399, 416925, and 417547) to satisfy 77.6 tpy of the NO<sub>x</sub> offset requirement under Condition 30.

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- B. In addition to, or in place of, using credits as described in Special Condition Number 30, the permit holder may use up to 41.9 tpy of Mass Emission Cap and Trade (MECT) allowances to offset the 34.94 tpy NO<sub>x</sub> project emission increase for the following MECT facilities authorized by this permit at a ratio of 1.2 to 1.0: **(6/23)**
- (1) FIN HR15.101/EPN HR15.101
  - (2) FIN HR15.102/EPN HR15.102
  - (3) FIN HR15.601/EPN HR15.601
- C. Prior to the commencement of operation, the permit holder shall obtain approval from the TCEQ EBT Program for the credits being used and then submit a permit alteration or amendment request to the TCEQ Air Permits Division (and copy the TCEQ Regional Office) to identify approved credits by TCEQ credit certificate number. **(6/23)**

**Cooling Tower (6/23)**

31. The cooling tower (EPN HT16.118) shall be operated and monitored in accordance with the following:
- A. Cooling towers shall each be equipped with drift eliminators having manufacturer's design assurance of 0.001% drift or less. Drift eliminators shall be maintained and inspected at least annually. The permit holder shall maintain records of all inspections and repairs.
  - B. Total dissolved solids (TDS) shall not exceed 3500 parts per million by weight (ppmw). Dissolved solids in the cooling water drift are considered to be emitted as PM, PM<sub>10</sub>, and PM<sub>2.5</sub> as represented in the permit application calculations.
  - C. Cooling towers shall be analyzed for particulate emissions using one of the following methods:
    - (1) Cooling water shall be sampled at least once per day for total dissolved solids (TDS); or
    - (2) TDS monitoring may be reduced to weekly if conductivity is monitored daily and TDS is calculated using a ratio of TDS-to-conductivity (in ppmw per µmho/cm or ppmw/siemens). The ratio of TDS-to-conductivity shall be determined by concurrently monitoring TDS and conductivity on a weekly basis. The permit holder may use the average of two consecutive TDS-to-conductivity ratios to calculate daily TDS; or
    - (3) TDS monitoring may be reduced to quarterly if conductivity is monitored daily and TDS is calculated using a correlation factor established for each cooling tower. The correlation factor shall be the average of nine consecutive weekly TDS-to-conductivity ratios determined using C(2) above provided the highest ratio is not more than 10% larger than the smallest ratio.
    - (4) The permit holder shall validate the TDS-to-conductivity correlation factor once each calendar quarter. If the ratio of concurrently sampled TDS and conductivity is more than 10% higher or lower than the established factor, the permit holder shall increase TDS monitoring to weekly until a new correlation factor can be established.
  - D. A sample of cooling tower water shall be taken from the circulated water stream(s) entering the cooling tower. The analysis shall be conducted using the approved methods below:

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- (1) The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, or SM 2540 C [SM - 19th edition of Standard Methods for Examination of Water]. Water samples should be capped upon collection, and transferred to a laboratory area for analysis.
  - (2) The analysis method for conductivity shall be either ASTM D1125-14 Test Method A (field or routine laboratory testing) or ASTM D1125-14 Test Method B (continuous monitor). The analysis may be conducted at the sample site or with a calibrated process conductivity meter. If a conductivity meter is used, it shall be calibrated at least annually. Documentation of the method and any associated calibration records shall be maintained.
  - (3) Alternate sampling and analysis methods may be used to comply with D(1) and D(2) with written approval from the TCEQ Regional Director. If approved by the TCEQ Regional Director, the permit holder shall submit a permit application to incorporate the alternative sampling and analysis method into the permit within 2 months of the date of written approval.
  - (4) Records of all instrument calibrations and test results and process measurements used for the emission calculations shall be retained.
- E. Emission rates of PM, PM<sub>10</sub> and PM<sub>2.5</sub> shall be calculated using the measured TDS and the ratio or correlation of TDS to conductivity measurements, the design drift rate and the daily maximum and average actual cooling water circulation rate for the short term and annual average rates. Alternately, the design maximum circulation rate may be used for all calculations. Emission records shall be updated monthly.

## Greenhouse Gases (GHG)

32. 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.
33. 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.
34. 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.
35. Records of emissions of GHG, and how they were determined, in compliance with Special Condition Nos. 322, 333, and 344 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



Special Conditions

Permit Numbers 156320, PSDTX1558M1, N272M1, GHGPSDTX193M1

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36. The following information shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made immediately available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction:
- A. Flare operation and monitoring according to Special Condition No. 8.
  - B. Scrubber operation and monitoring according to Special Condition No. 9.
  - C. Fixed roof storage tank operations according to Special Condition No. 10.
  - D. Loading emissions according to Special Condition No. 12.
  - E. Opacity / Visible Emissions readings according to Special Condition No. 14.
  - F. WSAC operation and monitoring according to Special Condition No. 15.
  - G. Fugitive monitoring according to Special Conditions No. 16 and 17.
  - H. MSS activities and emissions according to Special Conditions No. 18 through 23.
  - I. Stack sampling reports according to Special Condition No. 24.
  - J. Fuel flow monitoring according to Special Condition No. 25.
  - K. CEMS records according to Special Conditions No. 26 and 27.
  - L. Cooling tower operation and monitoring according to Special Condition No. 32.
  - M. GHG records according to Special Conditions No. 33 through 36.

Date: June 8, 2023

**Permit 156320**  
Attachment A

Inherently Low Emitting Activities

Activity	Emissions				
	VOC	NO <sub>x</sub>	CO	PM	H <sub>2</sub> S/SO <sub>2</sub>
Aerosol Cans	x				
Calibration/ Maintenance of process instrumentation	x				

Dated: January 24, 2020

**Permit 156320**

Attachment B

Routine Maintenance Activities

Compressor maintenance (100% gas)

Pump maintenance

Filter maintenance

Flow meter maintenance

Heat exchanger maintenance

Relief valve replacement

Valve and pipe maintenance/replacement: 100% liquid

Pump maintenance: 100% liquid

Pipeline pigging: 100% liquid

Dated: June 5, 2023

**Permit 156320**  
**Attachment C**  
 MSS Activity Summary

<b>Facilities</b>	<b>Description</b>	<b>Emissions Activity</b>	<b>EPN</b>
all process units	process unit shutdown/depressurize/drain	vent to flare	SK25.801
all process units	process unit shutdown/depressurize/drain	vent to atmosphere	MSS-PDH2
all process units	process unit startup	vent to flare	SK25.801
all process units and tanks	preparation for facility/component repair/replacement	vent to flare	SK25.801
all process units and tanks	preparation for facility/component repair/replacement	vent to atmosphere	MSS-PDH2
all process units and tanks	recovery from facility/component repair/replacement	vent to flare	SK25.801
all process units and tanks	recovery from facility/component repair/replacement	vent to atmosphere	MSS-PDH2
all process units and tanks	preparation for unit turnaround or facility/component repair/replacement	remove liquid	MSS-PDH2 MSS-P2VAC
all tanks	tank cleaning	cleaning activity and solvents	MSS-PDH2

Dated: June 5, 2023

Emission Sources - Maximum Allowable Emission Rates

Permit Number 156320, PSDTX1558M1, N272M1

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)
HR15.101	Charge Heater + No. 1 Interheater Stack	NO <sub>x</sub>	8.01	17.54
		CO	39.47	86.44
		VOC	2.88	12.61
		SO <sub>2</sub>	12.46	14.19
		PM	3.98	17.42
		PM <sub>10</sub>	3.98	17.42
		PM <sub>2.5</sub>	3.98	17.42
		NH <sub>3</sub>	2.40	10.51
HR15.101	Charge Heater + No. 1 Interheater Stack MSS	NO <sub>x</sub>	21.36	---
HR15.102	No. 2 Interheater + No. 3 Interheater Stack	NO <sub>x</sub>	6.60	14.45
		CO	32.52	71.22
		VOC	2.37	10.39
		SO <sub>2</sub>	10.27	11.69
		PM	3.28	14.36
		PM <sub>10</sub>	3.28	14.36
		PM <sub>2.5</sub>	3.28	14.36
		NH <sub>3</sub>	1.98	8.66
HR15.102	No. 2 Interheater + No. 3 Interheater Stack MSS	NO <sub>x</sub>	17.60	---
HR15.601	Hot Oil Heater	NO <sub>x</sub>	2.36	2.94
		CO	11.60	14.50
		VOC	0.85	2.12
		SO <sub>2</sub>	3.66	2.38
		PM	1.17	2.92

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		PM <sub>10</sub>	1.17	2.92
		PM <sub>2.5</sub>	1.17	2.92
		NH <sub>3</sub>	0.71	1.76
HR15.601	Hot Oil Heater MSS	NO <sub>x</sub>	6.28	---
HT16.102	Circulating Wash Oil Cooler WSAC	PM	0.40	1.75
		PM <sub>10</sub>	0.17	0.76
		PM <sub>2.5</sub>	<0.01	<0.01
HT16.118	Cooling Tower	PM	0.06	0.24
		PM <sub>10</sub>	0.02	0.11
		PM <sub>2.5</sub>	<0.01	<0.01
HT16104211	WSAC HT16.104/211	PM	1.35	5.92
		PM <sub>10</sub>	0.59	2.59
		PM <sub>2.5</sub>	<0.01	0.01
FUG-PDH2	Process Area Fugitives (5)	VOC	3.51	15.38
FUG-NGAS	Natural Gas Fugitives (5)	VOC	0.01	0.06
FUG-SCR	Aqueous Ammonia Fugitives (5)	NH <sub>3</sub>	0.01	0.03
SV19.863	Spent Caustic Tank 1	VOC	0.85	0.07
SV19.864	Spent Caustic Tank 2	VOC	0.85	0.09
SV19.911	Waste Water Tank	VOC	0.85	0.03
LO-1	Spent Caustic Truck Loading	VOC	0.23	0.08
LO-2	Waste Water Truck Loading	VOC	0.23	0.08
LO-3	Spent Solvent/C5+ Pressure Truck Loading	VOC	0.01	<0.01
SE29.751	CCR Scrubber Vent	SO <sub>2</sub>	0.50	2.21
		PM	0.15	0.68
		PM <sub>10</sub>	0.15	0.68
		PM <sub>2.5</sub>	0.15	0.68

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		HCl	0.25	1.09
		Cl <sub>2</sub>	0.22	0.98
REACTOR1-4	Reactor 1/2/3/4 Catalyst Transfers	PM	0.30	0.07
		PM <sub>10</sub>	0.14	0.03
		PM <sub>2.5</sub>	0.02	<0.01
SHP	SHP Reactor Catalyst Transfer	PM	0.44	0.02
		PM <sub>10</sub>	0.21	0.01
		PM <sub>2.5</sub>	0.03	<0.01
CATFINE	Catalyst Drum Filling	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
		PM <sub>2.5</sub>	<0.01	<0.01
SK25.801	Flare (Pilot + Normal)	NO <sub>x</sub>	104.69	22.81
		CO	189.03	52.99
		VOC	34.29	24.97
		SO <sub>2</sub>	8.85	1.33
SK25.801	Flare (MSS)	NO <sub>x</sub>	810.57	6.93
		CO	1,618.21	12.84
		VOC	2,913.77	16.45
		SO <sub>2</sub>	34.95	0.07
MSS-PDH2	MSS Equipment Clearing	VOC	198.44	0.83
MSS-P2VAC	MSS Vacuum Trucks	VOC	0.51	0.03

- (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

HCl - hydrogen chloride

Cl<sub>2</sub> - chlorine gas

(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: June 8, 2023



Emission Sources - Maximum Allowable Emission Rates  
Permit Number GHGPSDTX193M1

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)
HR15.101	Charge Heater + No. 1 Interheater Stack	CO <sub>2</sub> (5)	273,523
		CH <sub>4</sub> (5)	5.15
		N <sub>2</sub> O (5)	0.52
		CO <sub>2</sub> e	273,806
HR15.102	No. 2 Interheater + No. 3 Interheater Stack	CO <sub>2</sub> (5)	225,375
		CH <sub>4</sub> (5)	4.25
		N <sub>2</sub> O (5)	0.42
		CO <sub>2</sub> e	225,608
HR15.601	Hot Oil Heater	CO <sub>2</sub> (5)	45,895
		CH <sub>4</sub> (5)	0.86
		N <sub>2</sub> O (5)	0.09
		CO <sub>2</sub> e	45,942
SE29.751	CCR Scrubber Vent	CO <sub>2</sub> (5)	6,652
		CO <sub>2</sub> e	6,652
FUG-PDH2	Process Area Fugitives (5)	CH <sub>4</sub> (5)	0.19
		CO <sub>2</sub> e	4.71
FUG-NGAS	Natural Gas Fugitives (5)	CO <sub>2</sub> (5)	0.08
		CH <sub>4</sub> (5)	1.59
		CO <sub>2</sub> e	40
SK25.801	Flare (Pilot + Normal)	CO <sub>2</sub> (5)	42,573
		CH <sub>4</sub> (5)	38.46
		N <sub>2</sub> O (5)	0.07
		CO <sub>2</sub> e	43,555
SK25.801	Flare (MSS)	CO <sub>2</sub> (5)	6,082
		CH <sub>4</sub> (5)	6.16

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates
			TPY (4)
		N <sub>2</sub> O (5)	0.01
		CO <sub>2</sub> e	6,239

(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

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

CH<sub>4</sub> - methane

HFCs - hydrofluorocarbons

PFCs - perfluorocarbons

SF<sub>6</sub> - sulfur hexafluoride

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.

Date: June 8, 2023

**Major NSR Summary Table**

Permit Number: GHGPSDTX193M1			Issuance Date: June 8, 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
HR15.101	Charge Heater + No. 1 Interheater Stack	CO <sub>2</sub> (5)	273,523	33	32, 33, 34, 35, 36	33
		CH <sub>4</sub> (5)	5.15			
		N <sub>2</sub> O (5)	0.52			
		CO <sub>2</sub> e	273,806			
HR15.102	No. 2 Interheater + No. 3 Interheater Stack	CO <sub>2</sub> (5)	225,375	33	32, 33, 34, 35, 36	33
		CH <sub>4</sub> (5)	4.25			
		N <sub>2</sub> O (5)	0.42			
		CO <sub>2</sub> e	225,608			
HR15.601	Hot Oil Heater	CO <sub>2</sub> (5)	45,895	33	32, 33, 34,35, 36	33
		CH <sub>4</sub> (5)	0.86			
		N <sub>2</sub> O (5)	0.09			
		CO <sub>2</sub> e	45,942			
SE29.751	CCR Scrubber Vent	CO <sub>2</sub> (5)	6,652	33	32, 33, 34,35, 36	33
		CO <sub>2</sub> e	6,652			
FUG-PDH2	Process Area Fugitives (5)	CH <sub>4</sub> (5)	0.19	33	32, 33, 34,35, 36	33
		CO <sub>2</sub> e	4.71			
FUG-NGAS	Natural Gas Fugitives (5)	CO <sub>2</sub> (5)	0.08	33	32, 33, 34, 35, 36	33
		CH <sub>4</sub> (5)	1.59			

**Major NSR Summary Table**

Permit Number: GHGPSDTX193M1			Issuance Date: June 8, 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
		CO <sub>2</sub> e	40			
SK25.801	Flare (Pilot + Normal)	CO <sub>2</sub> (5)	42,573	33	32,33,34,35,36	33
		CH <sub>4</sub> (5)	38.46			
		N <sub>2</sub> O (5)	0.07			
		CO <sub>2</sub> e	43,555			
SK25.801	Flare (MSS)	CO <sub>2</sub> (5)	6,082	33	32,33,34,35,36	33
		CH <sub>4</sub> (5)	6.16			
		N <sub>2</sub> O (5)	0.01			
		CO <sub>2</sub> e	6,239			

- (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  
 N<sub>2</sub>O - nitrous oxide  
 CH<sub>4</sub> - methane  
 HFCs - hydrofluorocarbons  
 PFCs - perfluorocarbons  
 SF<sub>6</sub> - sulfur hexafluoride  
 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.