

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Union Carbide Corporation

AUTHORIZING THE OPERATION OF
Seadrift Operations
Low Pressure Polyethylene & Catalyst Facilities
All Other Basic Organic Chemical Manufacturing

LOCATED AT
Calhoun County, Texas
Latitude 28° 30' 54" Longitude 96° 46' 18"
Regulated Entity Number: RN102181526

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: O2032 Issuance Date: _____

For the Commission

Table of Contents

| Section | Page |
|---|------|
| General Terms and Conditions | 1 |
| Special Terms and Conditions: | 1 |
| Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting..... | 1 |
| Additional Monitoring Requirements | 9 |
| New Source Review Authorization Requirements | 10 |
| Compliance Requirements..... | 11 |
| Risk Management Plan | 11 |
| Protection of Stratospheric Ozone | 11 |
| Permit Location | 12 |
| Attachments | 13 |
| Applicable Requirements Summary..... | 14 |
| Additional Monitoring Requirements | 65 |
| New Source Review Authorization References | 88 |
| Appendix A..... | 101 |
| Acronym List | 102 |
| Appendix B..... | 103 |

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 EEEE as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.880 which incorporates the 40 CFR Part 63 Subpart by reference.
 - F. Emission units subject to 40 CFR Part 63, Subpart FFFF as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.890 which incorporates the 40 CFR Part 63 Subpart by reference.
 - G. 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
2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
- A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
 - B. Title 30 TAC § 101.3 (relating to Circumvention)
 - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
 - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
 - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
 - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
 - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
 - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
 - I. Title 30 TAC § 101.222 (relating to Demonstrations)
 - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

- (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(1)(E)
- (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
- (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:
 - (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
 - (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.
 - (3) Records of all observations shall be maintained.
 - (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer’s eyes. When condensed water vapor is present within the plume, as it emerges from the

emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.
- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

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

- (i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)
- (iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
 - (1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each

calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.

- (2) Records of all observations shall be maintained.
- (3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (4) Compliance Certification:
 - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A).
 - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

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

- (i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)

- (iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
- (1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.
 - (2) Records of all observations shall be maintained.
 - (3) Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
 - (4) Compliance Certification:
 - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)
 - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.
- D. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be

accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.

- E. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
 - F. 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)
 - G. Outdoor burning, as stated in 30 TAC § 111.201, shall not be authorized unless the following requirements are satisfied:
 - (i) Title 30 TAC § 111.205 (relating to Exception for Fire Training)
 - (ii) Title 30 TAC § 111.221 (relating to Responsibility for Consequences of Outdoor Burning)
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(c)(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).
10. For the transfer of site remediation materials subject to 40 CFR Part 63, Subpart GGGGG off-site to another facility, the permit holder shall comply with the following requirements (Title 30 TAC, Subchapter C, § 113.1160 incorporated by reference):
- A. Title 40 CFR § 63.7936(a), for the transfer of site remediation materials
 - B. Title 40 CFR § 63.7936(b)(1), for transfer to a landfill or land disposal unit
 - C. Title 40 CFR § 63.7936(b)(2), for transfer to a facility subject to 40 CFR Part 63, Subpart DD
 - D. Title 40 CFR § 63.7936(b)(3), (b)(3)(i) - (iv), for transfer to a facility managing the site remediation material according to the requirements of 40 CFR Part 63, Subpart GGGGG
 - E. Title 40 CFR § 63.7952(a)(10), for recordkeeping requirements

11. The permit holder shall comply with certified registrations submitted to the TCEQ for purposes of establishing federally enforceable emission limits. A copy of the certified registration shall be maintained with the permit. Records sufficient to demonstrate compliance with the established limits shall be maintained. The certified registration and records demonstrating compliance shall be provided, on request, to representatives of the appropriate TCEQ regional office and any local air pollution control agency having jurisdiction over the site. The permit holder shall submit updated certified registrations when changes at the site require establishment of new emission limits. If changes result in emissions that do not remain below major source thresholds, the permit holder shall submit a revision application to codify the appropriate requirements in the permit.

Additional Monitoring Requirements

12. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:
 - A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).
 - B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).
 - C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "CAM Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).
 - D. The permit holder shall operate the monitoring, identified in the attached "CAM Summary," in accordance with the provisions of 40 CFR § 64.7.
 - E. The permit holder shall comply with either of the following requirements for any particulate matter capture system associated with the control device subject to CAM. If the results of the following inspections indicate that the capture system is not working properly, the permit holder shall promptly take necessary corrective action:
 - (i) Once per year the permit holder shall inspect any fan for proper operation and inspect the capture system used in compliance of CAM for cracks, holes, tears, and other defects; or
 - (ii) Once per year, the permit holder shall inspect for fugitive emissions escaping from the capture system in compliance of CAM by performing a visible emissions observation for a period of at least six minutes in accordance with 40 CFR Part 60, Appendix A, Test Method 22.
 - F. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.

13. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

14. 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 March 3, 2026 in the application for project 37006), 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
15. 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.
16. 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).
17. The permit holder shall comply with the following requirements for Air Quality Standard Permits:
 - A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit
 - B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit
 - C. Requirements of the non-rule Air Quality Standard Permit for Pollution Control Projects

Compliance Requirements

18. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
19. Use of Discrete Emission Credits to comply with the applicable requirements:
 - A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117
 - (iii) If applicable, offsets for Title 30 TAC Chapter 116
 - (iv) Temporarily exceed state NSR permit allowables
 - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
 - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
 - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
 - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
 - (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Risk Management Plan

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

Protection of Stratospheric Ozone

21. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone:

- A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

Permit Location

- 22. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

New Source Review Authorization References

Applicable Requirements Summary

Unit Summary 15

Applicable Requirements Summary 30

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 (§ 122.144), Reporting Terms and Conditions (§ 122.145), and Compliance Certification Terms and Conditions (§ 122.146) continue to apply.

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|---------------------------------------|--|----------------------------------|----------------------|---------------------------------------|---|
| 1100 | FLARES | N/A | R1111-01 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| 1100 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R5121-01 | 30 TAC Chapter 115, Vent Gas Controls | No changing attributes. |
| 1100 | FLARES | N/A | 60A-01 | 40 CFR Part 60, Subpart A | Flare Assist Type = Air-assisted |
| 1100 | FLARES | N/A | 60A-02 | 40 CFR Part 60, Subpart A | Flare Assist Type = Non-assisted, Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm). |
| 1100 | FLARES | N/A | 63A-01 | 40 CFR Part 63, Subpart A | Flare Assist Type = Air assisted |
| 1100 | FLARES | N/A | 63A-02 | 40 CFR Part 63, Subpart A | Flare Assist Type = Non-assisted, Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm). |
| 1100 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | 63FFFF-01 | 40 CFR Part 63, Subpart FFFF | No changing attributes. |
| 1350 | FLARES | N/A | R1111-01 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| 1350 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R5121-01 | 30 TAC Chapter 115, Vent Gas Controls | No changing attributes. |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|---------------------------------------|--|----------------------------------|----------------------|---------------------------------------|---|
| 1350 | FLARES | N/A | 63A-01 | 40 CFR Part 63, Subpart A | Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec) |
| 1350 | FLARES | N/A | 63A-02 | 40 CFR Part 63, Subpart A | Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm). |
| 1350 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | 63FFFF-01 | 40 CFR Part 63, Subpart FFFF | No changing attributes. |
| 1351 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R1111-01 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| 1352 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R1111-01 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| 246 | FLARES | N/A | R1111-01 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| 246 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R5121-01 | 30 TAC Chapter 115, Vent Gas Controls | No changing attributes. |
| 246 | FLARES | N/A | 63A-01 | 40 CFR Part 63, Subpart A | Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec) |
| 246 | FLARES | N/A | 63A-02 | 40 CFR Part 63, Subpart A | Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., Heating Value |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|-------------------------------|--|--------------------------|---------------|--|--|
| | | | | | of Gas = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm). |
| 246 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | 63FFFF-01 | 40 CFR Part 63, Subpart FFFF | No changing attributes. |
| 2910 | STORAGE TANKS/VESSELS | N/A | R5112-01 | 30 TAC Chapter 115, Storage of VOCs | No changing attributes. |
| 2910 | STORAGE TANKS/VESSELS | N/A | 60KB-01 | 40 CFR Part 60, Subpart Kb | No changing attributes. |
| 2911 | STORAGE TANKS/VESSELS | N/A | R5112-01 | 30 TAC Chapter 115, Storage of VOCs | No changing attributes. |
| 2911 | STORAGE TANKS/VESSELS | N/A | 60KB-01 | 40 CFR Part 60, Subpart Kb | No changing attributes. |
| 530 | STORAGE TANKS/VESSELS | N/A | R5112-01 | 30 TAC Chapter 115, Storage of VOCs | No changing attributes. |
| 705 | FLARES | N/A | R1111-01 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| 705 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R5121-01 | 30 TAC Chapter 115, Vent Gas Controls | No changing attributes. |
| 705 | FLARES | N/A | 60A-01 | 40 CFR Part 60, Subpart A | Flare Assist Type = Air-assisted |
| 705 | FLARES | N/A | 60A-02 | 40 CFR Part 60, Subpart A | Flare Assist Type = Non-assisted, Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm). |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|---------------------------------------|--|---|----------------------|---|---|
| 705 | FLARES | N/A | 63A-01 | 40 CFR Part 63, Subpart A | Flare Assist Type = Air assisted |
| 705 | FLARES | N/A | 63A-02 | 40 CFR Part 63, Subpart A | Flare Assist Type = Non-assisted, Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm). |
| 705 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | 63FFFF-01 | 40 CFR Part 63, Subpart FFFF | No changing attributes. |
| C-3520 | STORAGE TANKS/VESSELS | N/A | R5112-01 | 30 TAC Chapter 115, Storage of VOCs | No changing attributes. |
| C-4501 | STORAGE TANKS/VESSELS | N/A | 63FFFF-01 | 40 CFR Part 63, Subpart FFFF | No changing attributes. |
| GRP-CAM | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | 245, 510, 511, 512, 513, 595, 725, 768, A-405, A-406, A-409 | R1151-01 | 30 TAC Chapter 111, Nonagricultural Processes | No changing attributes. |
| GRP-CAM | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | 245, 510, 511, 512, 513, 595, 725, 768, A-405, A-406, A-409 | R1111-01 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| GRP-MCPU | CHEMICAL MANUFACTURING PROCESS | PROFINSHG1, PROFINSHG2, PROFINSHG3, PROLP1R, PROMATRCV, PROMATRVG1, PROMATRVG2, PROREACTG1, PROREACTG2, | 63FFFF-01 | 40 CFR Part 63, Subpart FFFF | No changing attributes. |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|-------------------------------|--|---|---------------|--|-------------------------|
| | | PROREACTG3, PRORMC21-1, PRORMC22-2, PRORMC4, PRORMC5, PRORMHEXA, PRORMHEXE, PROSTOREG1, PROSTOREG2, PROSTOREG3 | | | |
| GRP-TK3 | STORAGE TANKS/VESSELS | C-3084, C-3086, C- 3091, C-3092 | R5112-01 | 30 TAC Chapter 115, Storage of VOCs | No changing attributes. |
| GRP-TK4 | STORAGE TANKS/VESSELS | LP1RCIC5TK, LP1RIC51DT, LP1RRC5TK, LP1RRC6TK | R5112-01 | 30 TAC Chapter 115, Storage of VOCs | No changing attributes. |
| GRP-TK5 | STORAGE TANKS/VESSELS | LP1RC4BULT, LP1RC6BULT | R5112-01 | 30 TAC Chapter 115, Storage of VOCs | No changing attributes. |
| GRP-VNT1 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | 1007, 1009, 1043, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1127, 1128, 1130, 1143D, 1152A, 1152B, 1161, 230, 232, 248, 351, 436, 441, 468, 469, 470, 483, 484, 485, 488, 489, 490, 491, 492, 493, 494, 495, 496, 535, 535 L, 707, 761 H, 762 H, 771, A-227, A- 233 | R5121-01 | 30 TAC Chapter 115, Vent Gas Controls | No changing attributes. |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|-------------------------------|--|--|---------------|--|-------------------------|
| GRP-VNT2 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | 1044, 1045, 1046, 1047, 1048, 1052, 1053A, 1130A, 1131A, 1132A, 1301, 1302, 1303, 1304, 1306, 1307, 1308, 1309, 191, 192, 193, 194, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 2301, 2302, 2303, 2304, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 415, 479, 591, 594, 720, 721, 772 | R1111-01 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| GRP-VNT2 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | 1044, 1045, 1046, 1047, 1048, 1052, 1053A, 1130A, 1131A, 1132A, 1301, 1302, 1303, 1304, 1306, 1307, 1308, 1309, 191, 192, 193, 194, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 2301, 2302, 2303, 2304, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 387, | R5121-01 | 30 TAC Chapter 115, Vent Gas Controls | No changing attributes. |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|---------------------------------------|--|--|----------------------|--|---------------------------|
| | | 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 415, 479, 591, 594, 720, 721, 772 | | | |
| GRP-VNT2CAM | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | 1053, 504, 505, 506, 507, 508, 509, 722, 723, 724 | R1151-01 | 30 TAC Chapter 111, Nonagricultural Processes | No changing attributes. |
| GRP-VNT2CAM | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | 1053, 504, 505, 506, 507, 508, 509, 722, 723, 724 | R1111-01 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| GRP-VNT2CAM | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | 1053, 504, 505, 506, 507, 508, 509, 722, 723, 724 | R5121-01 | 30 TAC Chapter 115, Vent Gas Controls | No changing attributes. |
| ISOPARUL | LOADING/UNLOADING OPERATIONS | N/A | R5211-01 | 30 TAC Chapter 115, Loading and Unloading of VOC | No changing attributes. |
| ISOPARUL | LOADING/UNLOADING OPERATIONS | N/A | 63EEEE-01 | 40 CFR Part 63, Subpart EEEE | No changing attributes. |
| LP1RRICATK | STORAGE TANKS/VESSELS | N/A | R5112-01 | 30 TAC Chapter 115, Storage of VOCs | No changing attributes. |
| LP1RTFT2TK | STORAGE TANKS/VESSELS | N/A | R5112-01 | 30 TAC Chapter 115, Storage of VOCs | No changing attributes. |
| LPPEFUG | FUGITIVE EMISSION UNITS | N/A | 60DDD-ALL | 40 CFR Part 60, Subpart DDD | No changing attributes. |
| LPPEFUG | FUGITIVE EMISSION UNITS | N/A | 63FFFF-01 | 40 CFR Part 63, Subpart FFFF | No changing attributes. |
| LPPEFUG | FUGITIVE EMISSION UNITS | N/A | 63H-ALL | 40 CFR Part 63, Subpart H | No changing attributes. |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|---------------------------------------|---------------------------------|----------------------------------|----------------------|--|--|
| MAOUL | LOADING/UNLOADING OPERATIONS | N/A | R5211-01 | 30 TAC Chapter 115, Loading and Unloading of VOC | No changing attributes. |
| MAOUL | LOADING/UNLOADING OPERATIONS | N/A | 63EEEE-01 | 40 CFR Part 63, Subpart EEEE | No changing attributes. |
| PRECLOAD | LOADING/UNLOADING OPERATIONS | N/A | R5211-01 | 30 TAC Chapter 115, Loading and Unloading of VOC | No changing attributes. |
| PROCATB | CHEMICAL MANUFACTURING PROCESS | N/A | 63FFFF-01 | 40 CFR Part 63, Subpart FFFF | No changing attributes. |
| PROCATC | CHEMICAL MANUFACTURING PROCESS | N/A | 63FFFF-01 | 40 CFR Part 63, Subpart FFFF | No changing attributes. |
| PRODFUG | FUGITIVE EMISSION UNITS | N/A | 63FFFF-01 | 40 CFR Part 63, Subpart FFFF | No changing attributes. |
| PRODFUG | FUGITIVE EMISSION UNITS | N/A | 63H-ALL | 40 CFR Part 63, Subpart H | No changing attributes. |
| PROFINSHG3 | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-01 | 40 CFR Part 60, Subpart DDD | Weight Percent TOC = Weight percent of total organic compounds is 0.10% or greater., Control of Continuous Emissions = All continuous emissions are controlled in an existing control device (as defined in 40 CFR § 60.561)., Continuous Control Device = Flare., Annual Emissions Entering the Control Device = Annual emissions entering the control device are greater than or equal to the calculated threshold emissions |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|-------------------------------|---------------------------------------|--------------------------|---------------|--------------------------------|---|
| | | | | | levels calculated in Table 3., Emission Reduction from Control Device = Existing control device (as defined in 40 CFR § 60.561) reduces emissions by 98 percent or greater, or exit concentration is 20 ppmv or less. |
| PROFINSHG3 | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-02 | 40 CFR Part 60, Subpart DDD | Weight Percent TOC = Weight percent of total organic compounds is less than 0.10%., Control of Continuous Emissions = Vent gas stream emissions are not controlled with an existing control device (as defined in 40 CFR § 60.561)., Table 3 Control Requirements = Calculations from Table 3 do not require controls. |
| PROMATRCV | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-01 | 40 CFR Part 60, Subpart DDD | Process Emissions = Individual vent gas streams emit intermittent emissions., Emergency Vent = Emissions are not an emergency vent stream from a new, modified, or reconstructed facility., Existing Control Device = The vent stream is not controlled in an existing control device (as defined in 40 CFR ‘ 60.561) which has not been reconstructed, replaced, or its operating conditions modified as a result of state or local regulations., Intermittent Control Device = Flare. |
| PROMATRCV | POLYMER MANUFACTURING | N/A | 60DDD-02 | 40 CFR Part 60, Subpart DDD | Process Emissions = Individual vent gas streams emit continuous |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|-------------------------------|---------------------------------------|--------------------------|---------------|--------------------------------|--|
| | PROCESSES | | | | emissions., Uncontrolled Annual Emissions = Uncontrolled annual emissions are 1.6 Mg/yr (1.76 tpy) or greater., Weight Percent TOC = Weight percent of total organic compounds is 0.10% or greater., Control of Continuous Emissions = All continuous emissions are controlled in an existing control device (as defined in 40 CFR § 60.561)., Continuous Control Device = Flare., Annual Emissions Entering the Control Device = Annual emissions entering the control device are greater than or equal to the calculated threshold emissions levels calculated in Table 3., Emission Reduction from Control Device = Existing control device (as defined in 40 CFR § 60.561) reduces emissions by 98 percent or greater, or exit concentration is 20 ppmv or less. |
| PROMATRVG1 | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-01 | 40 CFR Part 60, Subpart DDD | Process Emissions = Individual vent gas streams emit intermittent emissions., Emergency Vent = Emissions are not an emergency vent stream from a new, modified, or reconstructed facility., Existing Control Device = The vent stream is not controlled in an existing control device (as defined in 40 CFR § 60.561) which has not been reconstructed, replaced, or its operating conditions modified as a |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|-------------------------------|---------------------------------------|--------------------------|---------------|--------------------------------|--|
| | | | | | result of state or local regulations., Intermittent Control Device = Flare. |
| PROMATRVG1 | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-02 | 40 CFR Part 60, Subpart DDD | Process Emissions = Individual vent gas streams emit continuous emissions., Uncontrolled Annual Emissions = Uncontrolled annual emissions are 1.6 Mg/yr (1.76 tpy) or greater., Weight Percent TOC = Weight percent of total organic compounds is 0.10% or greater., Control of Continuous Emissions = All continuous emissions are controlled in an existing control device (as defined in 40 CFR § 60.561)., Continuous Control Device = Flare., Annual Emissions Entering the Control Device = Annual emissions entering the control device are greater than or equal to the calculated threshold emissions levels calculated in Table 3., Emission Reduction from Control Device = Existing control device (as defined in 40 CFR § 60.561) reduces emissions by 98 percent or greater, or exit concentration is 20 ppmv or less. |
| PROMATRVG2 | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-01 | 40 CFR Part 60, Subpart DDD | Process Emissions = Individual vent gas streams emit intermittent emissions., Emergency Vent = Emissions are not an emergency vent stream from a new, modified, or reconstructed facility., Existing Control Device = The vent stream is |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|-------------------------------|---------------------------------------|--------------------------|---------------|--------------------------------|--|
| | | | | | not controlled in an existing control device (as defined in 40 CFR ‘ 60.561) which has not been reconstructed, replaced, or its operating conditions modified as a result of state or local regulations., Intermittent Control Device = Flare. |
| PROMATRVG2 | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-02 | 40 CFR Part 60, Subpart DDD | Process Emissions = Individual vent gas streams emit continuous emissions., Uncontrolled Annual Emissions = Uncontrolled annual emissions are 1.6 Mg/yr (1.76 tpy) or greater., Weight Percent TOC = Weight percent of total organic compounds is 0.10% or greater., Control of Continuous Emissions = All continuous emissions are controlled in an existing control device (as defined in 40 CFR § 60.561)., Continuous Control Device = Flare., Annual Emissions Entering the Control Device = Annual emissions entering the control device are greater than or equal to the calculated threshold emissions levels calculated in Table 3., Emission Reduction from Control Device = Existing control device (as defined in 40 CFR § 60.561) reduces emissions by 98 percent or greater, or exit concentration is 20 ppmv or less. |
| PROREACTG3 | POLYMER MANUFACTURING | N/A | 60DDD-01 | 40 CFR Part 60, Subpart DDD | Process Emissions = Individual vent gas streams emit intermittent |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|-------------------------------|---------------------------------------|--------------------------|---------------|--------------------------------|--|
| | PROCESSES | | | | emissions., Control of Continuous Emissions = Vent gas stream emissions are not controlled with an existing control device (as defined in 40 CFR § 60.561)., Emergency Vent = Emissions are not an emergency vent stream from a new, modified, or reconstructed facility., Existing Control Device = The vent stream is not controlled in an existing control device (as defined in 40 CFR § 60.561) which has not been reconstructed, replaced, or its operating conditions modified as a result of state or local regulations., Intermittent Control Device = Flare. |
| PROREACTG3 | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-02 | 40 CFR Part 60, Subpart DDD | Process Emissions = Individual vent gas streams emit continuous emissions., Uncontrolled Annual Emissions = Uncontrolled annual emissions are less than 1.6 Mg/yr (1.76 tpy)., Weight Percent TOC = Weight percent of total organic compounds is less than 0.10%., Control of Continuous Emissions = Vent gas stream emissions are not controlled with an existing control device (as defined in 40 CFR § 60.561). |
| PROREACTG3 | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-03 | 40 CFR Part 60, Subpart DDD | Process Emissions = Individual vent gas streams emit continuous emissions., Uncontrolled Annual Emissions = Uncontrolled annual emissions are 1.6 Mg/yr (1.76 tpy) |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|-------------------------------|---------------------------------------|--------------------------|---------------|--|---|
| | | | | | or greater., Weight Percent TOC = Weight percent of total organic compounds is 0.10% or greater., Control of Continuous Emissions = All continuous emissions are controlled in an existing control device (as defined in 40 CFR § 60.561)., Continuous Control Device = Flare., Annual Emissions Entering the Control Device = Annual emissions entering the control device are greater than or equal to the calculated threshold emissions levels calculated in Table 3., Emission Reduction from Control Device = Existing control device (as defined in 40 CFR § 60.561) reduces emissions by 98 percent or greater, or exit concentration is 20 ppmv or less. |
| PRORMC22-2 | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-01 | 40 CFR Part 60, Subpart DDD | No changing attributes. |
| PRORMHEXA | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-01 | 40 CFR Part 60, Subpart DDD | No changing attributes. |
| PROSTOREG3 | POLYMER MANUFACTURING PROCESSES | N/A | 60DDD-01 | 40 CFR Part 60, Subpart DDD | No changing attributes. |
| TOLUENELD | LOADING/UNLOADING OPERATIONS | N/A | R5211-01 | 30 TAC Chapter 115, Loading and Unloading of VOC | No changing attributes. |

Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|-------------------------------|---------------------------------|--------------------------|---------------|---------------------------------|-------------------------|
| TOLUENEUL | LOADING/UNLOADING OPERATIONS | N/A | 63EEEE-01 | 40 CFR Part 63, Subpart EEEE | 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) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|--|---|---|---|---|
| 1100 | CD | R1111-01 | Opacity | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(4)(A) | Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period. 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 |
| 1100 | EP | R5121-01 | VOC | 30 TAC Chapter 115, Vent Gas Controls | § 115.122(c)(1) § 115.121(c)(1) § 115.122(c)(1)(B) § 60.18 | For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, any vent gas streams affected by §115.121(c)(1) must be controlled properly using one of the control requirements specified in §115.122(c)(1)(A)-(C). | [G]§ 115.125 § 115.126(2) | § 115.126 § 115.126(2) | None |
| 1100 | 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 |
| 1100 | CD | 60A-02 | Opacity | 40 CFR Part 60, Subpart A | § 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(iii) § 60.18(c)(6) § 60.18(e) | Flares shall comply with paragraphs (c)-(f) of § 60.18. | § 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4) § 60.18(f)(5) | None | None |
| 1100 | 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) | Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 | § 63.11(b)(4) § 63.11(b)(5) | 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) |
|---------------------------|-------------------------|---------------|-------------|---------------------------------------|--|--|--|--|--|
| | | | | | § 63.11(b)(6)(ii) § 63.11(b)(8) | consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used. | | | |
| 1100 | CD | 63A-02 | 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)(7)(iii) | 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) § 63.11(b)(7)(i) | None | None |
| 1100 | EP | 63FFFF-01 | 112(B) HAPS | 40 CFR Part 63, Subpart FFFF | § 63.2455(a)-Table 1.1.a.ii § 63.11(b) § 63.2450(a)(2) § 63.2450(b) [G]§ 63.2450(e)(4) [G]§ 63.2450(e)(5) [G]§ 63.2450(e)(6) § 63.2450(k)(8) § 63.2450(u) § 63.2455(a) § 63.2455(b) § 63.2455(b)(1) § 63.2535(m)(1) § 63.2535(m)(2) § 63.670 § 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) | 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)(3) § 63.983(d)(1) § 63.983(d)(1)(ii) | § 63.2450(k)(1)(ii) § 63.2450(k)(7) [G]§ 63.2525(m) § 63.2525(n) § 63.983(b) § 63.983(b)(3)(ii) [G]§ 63.983(d)(2) [G]§ 63.998(b)(1) § 63.998(b)(2)(i) § 63.998(b)(2)(ii) [G]§ 63.998(d)(1) | § 63.2520(d)(3) [G]§ 63.2520(e)(11) § 63.2520(e)(12) [G]§ 63.999(a)(1) § 63.999(b)(5) § 63.999(c)(1) § 63.999(c)(2)(i) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2) |
| 1350 | CD | R1111-01 | Opacity | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(4)(A) | Visible emissions from a process gas flare shall not be permitted for more than | § 111.111(a)(4)(A)(i) | § 111.111(a)(4)(A)(ii) | None |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-------------|---------------------------------------|--|---|---|---|---|
| | | | | | | 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)(ii) | | |
| 1350 | EP | R5121-01 | VOC | 30 TAC Chapter 115, Vent Gas Controls | § 115.122(c)(1) § 115.121(c)(1) § 115.122(c)(1)(B) § 60.18 | For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, any vent gas streams affected by §115.121(c)(1) must be controlled properly using one of the control requirements specified in §115.122(c)(1)(A)-(C). | [G]§ 115.125 § 115.126(2) | § 115.126 § 115.126(2) | None |
| 1350 | 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)(7)(i) | 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) § 63.11(b)(7)(i) | None | None |
| 1350 | CD | 63A-02 | 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)(7)(iii) | 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) § 63.11(b)(7)(i) | None | None |
| 1350 | EU | 63FFFF-01 | 112(B) HAPS | 40 CFR Part 63, Subpart FFFF | § 63.2455(a)-Table 1.1.a.ii § 63.11(b) § 63.2450(b) | For each Group 1 continuous process vent, the owner or operator must reduce emissions of total | [G]§ 63.115(d)(2)(v) § 63.115(d)(3)(iii) § 63.983(b) [G]§ 63.983(b)(1) | § 63.2450(f)(2) § 63.2450(f)(2)(i) § 63.2450(f)(2)(ii) § 63.983(b) | § 63.2450(f)(2)(ii) § 63.2450(q) § 63.987(b)(1) § 63.997(c)(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) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|---|---|---|---|---|
| | | | | | § 63.983(d)(3) | | | | |
| 1351 | EP | R1111-01 | Opacity | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(1)(B) § 111.111(a)(1)(E) | Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972. | [G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary | None | None |
| 1352 | EP | R1111-01 | Opacity | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(1)(B) § 111.111(a)(1)(E) | Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972. | [G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary | None | None |
| 246 | CD | R1111-01 | Opacity | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(4)(A) | Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period. 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 |
| 246 | EP | R5121-01 | VOC | 30 TAC Chapter 115, Vent Gas Controls | § 115.122(c)(1) § 115.121(c)(1) § 115.122(c)(1)(B) § 60.18 | For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, any vent gas streams affected by §115.121(c)(1) must be controlled properly using one of the control requirements specified in §115.122(c)(1)(A)-(C). | [G]§ 115.125 § 115.126(2) | § 115.126 § 115.126(2) | None |
| 246 | CD | 63A-01 | Opacity | 40 CFR Part 63, | § 63.11(b)(4) | Flares shall be designed | § 63.11(b)(4) | 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) |
|---------------------------|-------------------------|---------------|-------------|---------------------------------------|---|--|--|--|---|
| | | | | Subpart A | § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(i) | 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)(5) § 63.11(b)(7)(i) | | |
| 246 | CD | 63A-02 | 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)(7)(ii) | 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) § 63.11(b)(7)(i) | None | None |
| 246 | EU | 63FFFF-01 | 112(B) HAPS | 40 CFR Part 63, Subpart FFFF | § 63.2455(a) - Table 1.1.a. ii § 63.11(b) § 63.2450(a)(2) § 63.2450(b) [G]§ 63.2450(e)(4) [G]§ 63.2450(e)(5) [G]§ 63.2450(e)(6) § 63.2450(k)(8) § 63.2450(u) § 63.2455(a) § 63.2455(b) § 63.2455(b)(1) § 63.2535(m)(1) § 63.2535(m)(2) § 63.670 § 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) | § 63.2450(k)(1)(ii) § 63.2450(k)(7) [G]§ 63.2525(m) § 63.2525(n) § 63.983(b) § 63.983(b)(3)(ii) [G]§ 63.983(d)(2) [G]§ 63.998(b)(1) § 63.998(b)(2)(i) § 63.998(b)(2)(ii) [G]§ 63.998(d)(1) | § 63.2520(d)(3) [G]§ 63.2520(e)(11) § 63.2520(e)(12) [G]§ 63.999(a)(1) [G]§ 63.999(a)(2) § 63.999(b)(5) § 63.999(c)(1) § 63.999(c)(2)(i) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2) |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|---|--|---|--|--|
| | | | | | § 63.983(d)(3) | | | | |
| 2910 | EU | R5112-01 | VOC | 30 TAC Chapter 115, Storage of VOCs | § 115.112(c)(1) | Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b). | ** See Periodic Monitoring Summary | None | None |
| 2910 | EU | 60KB-01 | VOC | 40 CFR Part 60, Subpart Kb | § 60.112b(b)(1) [G]§ 60.112b(a)(3) § 60.18 | Storage vessels specified in §60.112b(b) and equipped with a closed vent system and control device are to meet the specifications in §60.112b(a)(3). | § 60.113b(d) § 60.116b(a) § 60.116b(b) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3) [G]§ 60.485(b) ** See Periodic Monitoring Summary | § 60.115b § 60.115b(d)(2) § 60.116b(a) § 60.116b(b) | § 60.115b § 60.115b(d)(1) § 60.115b(d)(3) [G]§ 60.115b(e) [G]§ 60.115b(f) [G]§ 60.115b(g) |
| 2911 | EU | R5112-01 | VOC | 30 TAC Chapter 115, Storage of VOCs | § 115.112(c)(1) | Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b). | ** See Periodic Monitoring Summary | None | None |
| 2911 | EU | 60KB-01 | VOC | 40 CFR Part 60, Subpart Kb | § 60.112b(b)(1) [G]§ 60.112b(a)(3) § 60.18 | Storage vessels specified in §60.112b(b) and equipped with a closed vent system and control device are to meet the specifications in §60.112b(a)(3). | § 60.113b(d) § 60.116b(a) § 60.116b(b) § 60.116b(e) § 60.116b(e)(1) [G]§ 60.116b(e)(3) [G]§ 60.485(b) ** See Periodic Monitoring Summary | § 60.115b § 60.115b(d)(2) § 60.116b(a) § 60.116b(b) | § 60.115b § 60.115b(d)(1) § 60.115b(d)(3) [G]§ 60.115b(e) [G]§ 60.115b(f) [G]§ 60.115b(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) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|---|---|--|---|---|
| 530 | EU | R5112-01 | VOC | 30 TAC Chapter 115, Storage of VOCs | § 115.112(c)(1) | Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b). | ** See Periodic Monitoring Summary | None | None |
| 705 | CD | R1111-01 | Opacity | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(4)(A) | Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period. 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 |
| 705 | EP | R5121-01 | VOC | 30 TAC Chapter 115, Vent Gas Controls | § 115.122(c)(1) § 115.121(c)(1) § 115.122(c)(1)(B) § 60.18 | For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, any vent gas streams affected by §115.121(c)(1) must be controlled properly using one of the control requirements specified in §115.122(c)(1)(A)-(C). | [G]§ 115.125 § 115.126(2) | § 115.126 § 115.126(2) | None |
| 705 | 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 |
| 705 | CD | 60A-02 | Opacity | 40 CFR Part 60, Subpart A | § 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) | 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) | 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) |
|---------------------------|-------------------------|---------------|-------------|---------------------------------------|--|--|--|--|--|
| | | | | | § 60.18(c)(4)(iii) § 60.18(c)(6) § 60.18(e) | | § 60.18(f)(4) § 60.18(f)(5) | | |
| 705 | 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 |
| 705 | CD | 63A-02 | 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)(7)(iii) | 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) § 63.11(b)(7)(i) | None | None |
| 705 | EP | 63FFFF-01 | 112(B) HAPS | 40 CFR Part 63, Subpart FFFF | § 63.2455(a)-Table 1.1.a.ii § 63.11(b) § 63.2450(a)(2) § 63.2450(b) [G]§ 63.2450(e)(4) [G]§ 63.2450(e)(5) [G]§ 63.2450(e)(6) § 63.2450(k)(8) § 63.2450(u) § 63.2455(a) § 63.2455(b) § 63.2455(b)(1) § 63.2535(m)(1) § 63.2535(m)(2) § 63.670 § 63.983(a)(1) | 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) | § 63.2450(k)(1)(ii) § 63.2450(k)(7) [G]§ 63.2525(m) § 63.2525(n) § 63.983(b) § 63.983(b)(3)(ii) [G]§ 63.983(d)(2) [G]§ 63.998(b)(1) § 63.998(b)(2)(i) § 63.998(b)(2)(ii) [G]§ 63.998(d)(1) | § 63.2520(d)(3) [G]§ 63.2520(e)(11) § 63.2520(e)(12) [G]§ 63.999(a)(1) § 63.999(b)(5) § 63.999(c)(1) § 63.999(c)(2)(i) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2) |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-------------|---|--|---|---|--|---|
| | | | | | § 63.983(a)(2) § 63.983(d)(1) § 63.983(d)(1)(i) [G]§ 63.983(d)(2) § 63.983(d)(3) | | | | |
| C-3520 | EU | R5112-01 | VOC | 30 TAC Chapter 115, Storage of VOCs | § 115.112(c)(1) | Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b). | ** See Periodic Monitoring Summary | None | None |
| C-4501 | EU | 63FFFF-01 | 112(B) HAPS | 40 CFR Part 63, Subpart FFFF | § 63.2470(a)-Table 4.1.b.iii § 63.11(b) § 63.2450(a)(2) § 63.2450(b) [G]§ 63.2450(e)(4) [G]§ 63.2450(e)(5) [G]§ 63.2450(e)(6) § 63.2450(k)(8) § 63.2450(u) § 63.2470(a) § 63.2470(d) § 63.2535(m)(1) § 63.2535(m)(2) § 63.670 § 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) | For each Group 1 storage tank for which the maximum true vapor pressure of total HAP at the storage temperature is < 76.6 kilopascals, you may reduce total organic HAP emissions by venting emissions through a closed vent system to a flare. | [G]§ 63.115(d)(2)(v) § 63.115(d)(3)(iii) § 63.2470(c)(1) § 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) | § 63.2450(k)(1)(ii) § 63.2450(k)(7) § 63.2470(c)(1) [G]§ 63.2525(m) § 63.2525(n) § 63.983(b) § 63.983(b)(3)(ii) [G]§ 63.983(d)(2) [G]§ 63.998(b)(1) § 63.998(b)(2)(i) § 63.998(b)(2)(ii) [G]§ 63.998(c)(1) [G]§ 63.998(d)(1) | § 63.2470(d) § 63.2520(d)(3) [G]§ 63.2520(e)(11) § 63.2520(e)(12) [G]§ 63.999(a)(1) [G]§ 63.999(a)(2) § 63.999(b)(5) § 63.999(c)(1) § 63.999(c)(2)(i) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2) |
| GRP-CAM | EP | R1151-01 | PM | 30 TAC Chapter 111, Nonagricultural Processes | § 111.151(a) § 111.151(c) | No person may cause, suffer, allow, or permit emissions of particulate matter from any source to | ** See CAM Summary | None | None |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-------------|---------------------------------------|--|--|---|---|---|
| | | | | | | exceed the allowable rates specified in Table 1 as follows, except as provided by §111.153 of this title (relating to Emissions Limits for Steam Generators). | | | |
| GRP-CAM | EP | R1111-01 | Opacity | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(1)(B) § 111.111(a)(1)(E) | Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972. | [G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary | None | None |
| GRP-MCPU | PRO | 63FFFF-01 | 112(B) HAPS | 40 CFR Part 63, Subpart FFFF | § 63.2440(a) § 63.2450(a) § 63.2450(a)(2) [G]§ 63.2450(e)(4) § 63.2450(g)(7) § 63.2450(k)(8) § 63.2450(t) § 63.2450(u) [G]§ 63.2450(v) | This subpart applies to each miscellaneous organic chemical manufacturing affected source. | § 63.2445(d) § 63.2450(g)(6) | § 63.2525 § 63.2525(a) [G]§ 63.2525(b) § 63.2525(c) § 63.2525(e) § 63.2525(e)(2) § 63.2525(e)(3) [G]§ 63.2525(e)(4) [G]§ 63.2525(p) | § 63.2435(d) § 63.2445(c) § 63.2450(g)(5) § 63.2450(m) § 63.2450(m)(1) § 63.2450(m)(2) § 63.2515(a) § 63.2515(b)(1) § 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) [G]§ 63.2520(e)(14) § 63.2520(e)(2) § 63.2520(e)(3) § 63.2520(e)(5) § 63.2520(e)(5)(i) [G]§ 63.2520(e)(5)(ii) [G]§ 63.2520(e)(5)(iii) § 63.2520(e)(5)(iv) |

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) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|---|--|-------------------------------------|---|---|
| | | | | | | | | | § 63.2520(e)(7) § 63.2520(e)(9) |
| GRP-TK3 | EU | R5112-01 | VOC | 30 TAC Chapter 115, Storage of VOCs | § 115.112(c)(1) | Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b). | ** See Periodic Monitoring Summary | None | None |
| GRP-TK4 | EU | R5112-01 | VOC | 30 TAC Chapter 115, Storage of VOCs | § 115.112(c)(1) | Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b). | ** See Periodic Monitoring Summary | None | None |
| GRP-TK5 | EU | R5112-01 | VOC | 30 TAC Chapter 115, Storage of VOCs | § 115.112(c)(1) | Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b). | ** See Periodic Monitoring Summary | None | None |
| GRP-VNT1 | EP | R5121-01 | VOC | 30 TAC Chapter 115, Vent Gas Controls | § 115.127(c)(1)(B) § 115.127(c)(1) | A vent gas stream having a combined weight of the VOC or classes of compounds specified in §115.121(c)(1)(B)-(C) of this title equal to or less than 100 lbs in a continuous 24-hour period is exempt from the requirements of §115.121(c)(1) of this title. | [G]§ 115.125 § 115.126(2) | § 115.126 § 115.126(2) § 115.126(4) | None |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-----------|---|---|--|---|---|---|
| GRP-VNT2 | EP | R1111-01 | Opacity | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(1)(B) § 111.111(a)(1)(E) | Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972. | [G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary | None | None |
| GRP-VNT2 | EP | R5121-01 | VOC | 30 TAC Chapter 115, Vent Gas Controls | § 115.127(c)(1)(C) § 115.127(c)(1) | A vent gas stream having a concentration of the VOC specified in §115.121(c)(1)(B) and (C) of this title less than 30,000 ppmv is exempt from the requirements of §115.121(c)(1) of this title. | [G]§ 115.125 § 115.126(2) | § 115.126 § 115.126(2) § 115.126(4) | None |
| GRP-VNT2CAM | EP | R1151-01 | PM | 30 TAC Chapter 111, Nonagricultural Processes | § 111.151(a) § 111.151(c) | No person may cause, suffer, allow, or permit emissions of particulate matter from any source to exceed the allowable rates specified in Table 1 as follows, except as provided by §111.153 of this title (relating to Emissions Limits for Steam Generators). | ** See CAM Summary | None | None |
| GRP-VNT2CAM | EP | R1111-01 | Opacity | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(1)(B) § 111.111(a)(1)(E) | Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972. | [G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary | None | None |
| GRP-VNT2CAM | EP | R5121-01 | VOC | 30 TAC Chapter 115, Vent Gas Controls | § 115.127(c)(1)(C) § 115.127(c)(1) | A vent gas stream having a concentration of the VOC specified in | [G]§ 115.125 § 115.126(2) | § 115.126 § 115.126(2) § 115.126(4) | None |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-------------|--|---|--|--|---|---|
| | | | | | | §115.121(c)(1)(B) and (C) of this title less than 30,000 ppmv is exempt from the requirements of §115.121(c)(1) of this title. | | | |
| ISOPARUL | EU | R5211-01 | VOC | 30 TAC Chapter 115, Loading and Unloading of VOC | § 115.217(b)(2) § 115.212(b)(2) § 115.214(b)(1)(B) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i) | All land-based loading and unloading of VOC with a true vapor pressure less than 1.5 psia under actual storage conditions is exempt from the requirements of the division (relating to Loading and Unloading of VOCs), except as specified. | § 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.215 § 115.215(4) | § 115.216 § 115.216(2) § 115.216(3)(B) | None |
| ISOPARUL | EU | 63EEEE-01 | 112(B) HAPS | 40 CFR Part 63, Subpart EEEE | § 63.2343(a) | For each transfer rack subject to this subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each transfer rack identified in §63.2343(a) is not required to be controlled. | None | § 63.2343(a) | None |
| LP1RRICAT K | EU | R5112-01 | VOC | 30 TAC Chapter 115, Storage of VOCs | § 115.112(c)(1) | Tanks shall not store VOC, other than crude oil or condensate, unless the required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b). | ** See Periodic Monitoring Summary | None | None |
| LP1RTFT2T K | EU | R5112-01 | VOC | 30 TAC Chapter 115, Storage of VOCs | § 115.112(c)(1) | Tanks shall not store VOC, other than crude oil or condensate, unless the | ** See Periodic Monitoring Summary | None | None |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|---|--|--|---|--|
| | | | | | | required pressure is maintained, or they are equipped with the appropriate control device specified in Table I(b). | | | |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-2(b)(1) [G]§ 60.482-2(b)(2) § 60.482-2(c)(1) [G]§ 60.482-2(c)(2) § 60.482-2(d) [G]§ 60.482-2(d)(1) § 60.482-2(d)(2) § 60.482-2(d)(3) [G]§ 60.482-2(d)(4) [G]§ 60.482-2(d)(5) [G]§ 60.482-2(d)(6) [G]§ 60.482-2(e) § 60.482-2(f) [G]§ 60.482-2(g) § 60.482-2(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(d) § 60.482-9(f) § 60.486(k) § 60.562-2(d) § 60.562-2(e) | Comply with the requirements as stated in §60.482-2 for pumps in light-liquid service. | § 60.482-1(f)(1) § 60.482-1(f)(2) [G]§ 60.482-1(f)(3) [G]§ 60.482-2(a) [G]§ 60.482-2(b)(2) [G]§ 60.482-2(d)(4) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.562-2(d) | § 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) § 60.486(f) [G]§ 60.486(h) § 60.486(j) § 60.562-2(e) | § 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) [G]§ 60.482-1(e) § 60.486(k) | Comply with the requirements in as stated in §60.482-1(e) for equipment in VOC service < 300 hours/year. | None | [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(6) § 60.486(j) | § 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) § 60.482-1(a) | Comply with the requirements in as stated in | § 60.482-8(a)(1) § 60.485(a) | § 60.482-1(g) [G]§ 60.486(a) | § 60.487(a) [G]§ 60.487(b) |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|---|---|---|--|--|
| | | | | | § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.482-9(f) § 60.486(k) § 60.562-2(d) § 60.562-2(e) | §60.482-8 for pressure relief devices in light-liquid or heavy-liquid service. | [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.562-2(d) | [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.562-2(e) | [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) § 60.482-1(d) § 60.486(k) § 60.562-2(e) | Comply with the requirements as stated in §60.482-1(d) for equipment in vacuum service. | None | [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(5) § 60.486(j) § 60.562-2(e) | § 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) § 60.482-9(f) § 60.486(k) § 60.562-2(d) § 60.562-2(e) | Comply with the requirements in as stated in §60.482-8 for flanges or other connectors. | § 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) § 60.562-2(d) | § 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.562-2(e) | § 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) § 60.482-1(a) | Comply with the requirements in as stated in | § 60.482-1(f)(1) § 60.482-1(f)(2) | § 60.482-1(g) [G]§ 60.486(a) | § 60.487(a) [G]§ 60.487(b) |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|--|---|--|---|--|
| | | | | | § 60.482-1(b) § 60.482-1(g) § 60.482-7(b) § 60.482-7(d)(1) § 60.482-7(d)(2) [G]§ 60.482-7(e) [G]§ 60.482-7(f) [G]§ 60.482-7(g) [G]§ 60.482-7(h) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.486(k) § 60.562-2(d) § 60.562-2(e) | §60.482-7 for valves in gas/vapor or light-liquid service. | [G]§ 60.482-1(f)(3) § 60.482-7(a)(1) [G]§ 60.482-7(a)(2) § 60.482-7(c)(1)(i) § 60.482-7(c)(1)(ii) § 60.482-7(c)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.562-2(d) | [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(g) § 60.486(j) § 60.562-2(e) | [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-6(a)(1) § 60.482-6(a)(2) § 60.482-6(b) § 60.482-6(c) § 60.482-6(d) § 60.482-6(e) § 60.486(k) § 60.562-2(d) § 60.562-2(e) | Comply with the requirements in as stated in §60.482-6 for open-ended valves and lines. | § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) § 60.562-2(d) | § 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.562-2(e) | § 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-5(a) [G]§ 60.482-5(b) § 60.482-5(c) § 60.486(k) | Comply with the requirements in as stated in §60.482-5 for sampling connection systems. | § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f) § 60.562-2(d) | § 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.562-2(e) | § 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|---|--|---|--|--|
| | | | | | § 60.562-2(d) § 60.562-2(e) | | | | |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-4(a) § 60.482-4(b)(1) § 60.482-4(c) § 60.482-4(d)(1) § 60.482-4(d)(2) § 60.482-9(a) § 60.482-9(b) § 60.486(k) § 60.562-2(d) § 60.562-2(e) | Comply with the requirements in as stated in §60.482-4 for pressure relief devices in gas/vapor service. | § 60.482-4(b)(2) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) § 60.562-2(d) | § 60.482-1(g) [G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j) § 60.562-2(e) | § 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-3(a) [G]§ 60.482-3(b) § 60.482-3(c) § 60.482-3(d) § 60.482-3(e)(1) § 60.482-3(e)(2) § 60.482-3(f) § 60.482-3(g)(1) § 60.482-3(g)(2) § 60.482-3(h) [G]§ 60.482-3(i) § 60.482-3(j) § 60.482-9(a) § 60.482-9(b) § 60.486(k) § 60.562-2(d) § 60.562-2(e) | Comply with the requirements as stated in §60.482-3 for compressors. | § 60.482-3(e)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) § 60.562-2(d) | § 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j) § 60.562-2(e) | § 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |
| LPPEFUG | EU | 60DDD- | VOC/TOC | 40 CFR Part 60, | § 60.562-2(a) | Comply with the | § 60.482-8(a)(1) | § 60.482-1(g) | § 60.487(a) |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-------------|---------------------------------------|---|--|---|--|--|
| | | ALL | | Subpart DDD | § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.486(k) § 60.562-2(d) § 60.562-2(e) | requirements in as stated in §60.482-8 for valves in heavy-liquid service. | § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.562-2(d) | [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.562-2(e) | [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |
| LPPEFUG | EU | 60DDD-ALL | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-8(a) § 60.482-8(a)(2) § 60.482-8(b) § 60.482-8(c)(1) § 60.482-8(c)(2) § 60.482-8(d) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(d) § 60.482-9(f) § 60.486(k) § 60.562-2(d) § 60.562-2(e) | Comply with the requirements in as stated in §60.482-8 for pumps in heavy-liquid service. | § 60.482-8(a)(1) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f) § 60.562-2(d) | § 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.562-2(e) | § 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) |
| LPPEFUG | EU | 63FFFF-01 | 112(B) HAPS | 40 CFR Part 63, Subpart FFFF | § 63.2480(a)-Table 6.1.a.ii § 63.162(a) § 63.162(c) | For all equipment that is in organic HAP service and that is part of any MCPU, comply with the | [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d) § 63.2480(b)(7) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) |

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]§ 63.162(g) § 63.162(h) [G]§ 63.171 § 63.2435(a) § 63.2435(b) § 63.2435(b)(1) § 63.2435(b)(1)(i) § 63.2435(b)(1)(ii) § 63.2435(b)(2) § 63.2435(b)(3) § 63.2440(a) § 63.2440(b) § 63.2445(b) § 63.2445(d) § 63.2445(g) § 63.2445(g)(1) § 63.2445(g)(4) § 63.2445(h) § 63.2450(a) § 63.2450(a)(2) § 63.2450(g)(7) § 63.2480(a) § 63.2480(b) § 63.2480(b)(3) § 63.2480(b)(5) § 63.2480(b)(6) § 63.2480(e) § 63.2480(e)(1) § 63.2480(e)(2)(ii) [G]§ 63.2480(e)(3) [G]§ 63.2480(e)(4) [G]§ 63.2480(e)(5) [G]§ 63.2480(e)(6) [G]§ 63.2480(e)(7) § 63.2480(f)(1) § 63.2480(f)(2) § 63.2480(f)(3) [G]§ 63.2535(k) § 63.2540 | requirements of subpart H of this part and the requirements referenced therein, except as specified in §63.2480(b) and (d) through (f). | § 63.2480(e)(2)(ii) [G]§ 63.2480(e)(2) [G]§ 63.2480(e)(3) [G]§ 63.2480(e)(4) [G]§ 63.2480(e)(5) | § 63.2445(g)(7) § 63.2525(a) [G]§ 63.2525(b) § 63.2525(f) § 63.2525(j) [G]§ 63.2525(p) [G]§ 63.2525(q) § 63.2525(t) § 63.2525(u)(1) § 63.2525(u)(2) § 63.2525(u)(3) | § 63.182(c)(4) [G]§ 63.182(d) § 63.2445(c) § 63.2445(g)(7) § 63.2450(m)(1) § 63.2450(m)(2) § 63.2450(m)(3) § 63.2515(a) § 63.2515(b)(1) § 63.2515(d) § 63.2520(a) § 63.2520(a) -Table 11.1 § 63.2520(a) -Table 11.2 § 63.2520(a) -Table 11.3 [G]§ 63.2520(b) § 63.2520(d) § 63.2520(d)(1) § 63.2520(d)(2) § 63.2520(d)(2)(i) § 63.2520(d)(2)(ii) § 63.2520(d)(2)(iii) § 63.2520(d)(2)(iv) § 63.2520(d)(2)(v) § 63.2520(d)(2)(vi) § 63.2520(d)(2)(vii) [G]§ 63.2520(d)(4) § 63.2520(e) § 63.2520(e)(1) § 63.2520(e)(10) [G]§ 63.2520(e)(10)(i) § 63.2520(e)(10)(ii)(C) [G]§ 63.2520(e)(14) [G]§ 63.2520(e)(15) § 63.2520(e)(2) § 63.2520(e)(3) § 63.2520(e)(4) § 63.2520(e)(5)(i) § 63.2520(e)(5)(ii) § 63.2520(e)(5)(ii)(A) § 63.2520(e)(5)(ii)(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) |
|---------------------------|-------------------------|---------------|----------------|---------------------------------------|--|--|--|--|--|
| | | | | | | | | | § 63.2520(e)(5)(ii)(D) § 63.2520(e)(5)(iii)(C) § 63.2520(e)(5)(iii)(E) § 63.2520(e)(7) § 63.2520(e)(9) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.167 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Open-ended valves or lines. §63.167(a)-(e). | [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175 | Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j) | [G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.163 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.176 | Standards: Pumps in light liquid service. §63.163(a)-(j) | [G]§ 63.163 [G]§ 63.176 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(3) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) § 63.181(h)(8) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.174 § 63.162(a) § 63.162(c) [G]§ 63.162(f) | Standards: Connectors in gas/vapor service and in light liquid service. §63.174(a)-(j) | [G]§ 63.174 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) |

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]§ 63.162(g) § 63.162(h) [G]§ 63.171 | | | | § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.173 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Agitators gas/vapor service and in light liquid service. §63.173(a)-(j). | [G]§ 63.173 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | § 63.170 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Surge control vessels and bottom receivers. | [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Pressure relief devices in liquid service. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Instrumentation systems. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Agitators in heavy liquid service. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |

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]§ 63.171 | | | | |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Connectors in heavy liquid service. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Valves in heavy liquid service. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Pumps in heavy liquid service. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Sampling connection systems. §63.166(a)-(c) | [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | § 63.162(e) § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) | Equipment that is in organic HAP service less than 300 hours per year is excluded from the requirements of §§63.163 - 63.174 and §63.178 if it is identified as required in §63.181(j). | [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i) § 63.181(j) | [G]§ 63.182(a) [G]§ 63.182(b) |

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) |
|---------------------------|-------------------------|---------------|----------------|--|---|--|---|---|--|
| LPPEFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.164 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Compressors. §63.164(a)-(i) | [G]§ 63.164 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(f) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| MAOUL | EU | R5211-01 | VOC | 30 TAC Chapter 115, Loading and Unloading of VOC | § 115.217(b)(2) § 115.212(b)(2) § 115.214(b)(1)(B) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i) | All land-based loading and unloading of VOC with a true vapor pressure less than 1.5 psia under actual storage conditions is exempt from the requirements of the division (relating to Loading and Unloading of VOCs), except as specified. | § 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.215 § 115.215(4) | § 115.216 § 115.216(2) § 115.216(3)(B) | None |
| MAOUL | EU | 63EEEE-01 | 112(B) HAPS | 40 CFR Part 63, Subpart EEEE | § 63.2343(a) | For each transfer rack subject to this subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each transfer rack identified in §63.2343(a) is not required to be controlled. | None | § 63.2343(a) | None |
| PRECLOAD | EU | R5211-01 | VOC | 30 TAC Chapter 115, Loading and Unloading of VOC | § 115.212(b)(1) § 115.212(b)(1)(A) § 115.212(b)(3)(A) § 115.212(b)(3)(A)(i) § 115.212(b)(3)(B) [G]§ 115.212(b)(3)(C) § 115.212(b)(3)(E) § 115.214(b)(1)(B) | In Aransas, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties, vapors caused by the loading of VOC with a TVP greater than or equal to 1.5 psia must be controlled using one of the methods specified in | § 115.212(b)(3)(B) [G]§ 115.212(b)(3)(C) § 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.214(b)(1)(A)(ii) § 115.214(b)(1)(A)(iii) | § 115.216 § 115.216(1) § 115.216(1)(B) § 115.216(2) § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(ii) § 115.216(3)(A)(iii) § 115.216(3)(B) | None |

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) |
|---------------------------|-------------------------|---------------|----------------|---------------------------------------|---|---|---|---|---|
| | | | | | § 115.214(b)(1)(C) § 60.18 | §115.212(b)(1)(A)-(C). | § 115.215 § 115.215(1) § 115.215(10) [G]§ 115.215(2) [G]§ 115.215(3) § 115.215(4) § 115.215(5) § 115.215(8) § 115.215(9) § 115.216(1) | | |
| PROCATB | EP | 63FFFF-01 | 112(B) HAPS | 40 CFR Part 63, Subpart FFFF | § 63.2460(a) § 63.11(b) § 63.2450(a)(2) [G]§ 63.2450(a)(4) [G]§ 63.2450(a)(5) [G]§ 63.2450(a)(6) § 63.2450(b) § 63.2450(k)(8) § 63.2450(u) § 63.2460(a)-Table 2.1.c § 63.2460(b) § 63.2460(c)(7) § 63.2535(m)(1) § 63.2535(m)(2) § 63.670 § 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) | You must meet each emission limit in Table 2 to this subpart that applies to you, and you must meet each applicable requirement specified in §63.2460(b) and (c). | [G]§ 63.115(d)(2)(v) § 63.115(d)(3)(iii) § 63.2460(c)(2)(i) § 63.2460(c)(2)(ii) § 63.2460(c)(2)(vi) § 63.2460(c)(3) § 63.2460(c)(3)(i) § 63.2460(c)(4) § 63.2460(c)(6) § 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) | § 63.2450(k)(1)(ii) § 63.2450(k)(7) § 63.2460(c)(3)(ii) § 63.2460(c)(6) § 63.2525(g) [G]§ 63.2525(m) § 63.2525(n) § 63.983(b) § 63.983(b)(3)(ii) [G]§ 63.983(d)(2) [G]§ 63.998(b)(1) § 63.998(b)(2)(i) § 63.998(b)(2)(ii) [G]§ 63.998(c)(1) [G]§ 63.998(d)(1) | § 63.2460(c)(3)(i) § 63.2520(d)(3) [G]§ 63.2520(e)(11) § 63.2520(e)(12) [G]§ 63.999(a)(1) [G]§ 63.999(a)(2) § 63.999(b)(5) § 63.999(c)(1) § 63.999(c)(2)(i) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2) |
| PROCATC | PRO | 63FFFF-01 | 112(B) HAPS | 40 CFR Part 63, Subpart FFFF | § 63.2440(a) § 63.2450(a) § 63.2450(a)(2) [G]§ 63.2450(e)(4) § 63.2450(g)(7) § 63.2450(k)(8) | This subpart applies to each miscellaneous organic chemical manufacturing affected source. | § 63.2445(d) § 63.2450(g)(6) § 63.2460(c)(2)(v) | § 63.2525 § 63.2525(a) [G]§ 63.2525(b) § 63.2525(c) [G]§ 63.2525(p) | § 63.2435(d) § 63.2445(c) § 63.2450(g)(5) § 63.2450(m) § 63.2450(m)(1) § 63.2450(m)(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) |
|---------------------------|-------------------------|---------------|-------------|---------------------------------------|---|--|--|---|--|
| | | | | | § 63.2450(t) § 63.2450(u) [G]§ 63.2450(v) § 63.2460(c)(1) | | | | § 63.2460(c)(1) § 63.2515(a) § 63.2515(b)(1) § 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) [G]§ 63.2520(e)(14) § 63.2520(e)(2) § 63.2520(e)(3) § 63.2520(e)(5) § 63.2520(e)(5)(i) [G]§ 63.2520(e)(5)(ii) [G]§ 63.2520(e)(5)(iii) § 63.2520(e)(7) § 63.2520(e)(9) |
| PRODFUG | EU | 63FFFF-01 | 112(B) HAPS | 40 CFR Part 63, Subpart FFFF | § 63.2480(a)-Table 6.1.a.ii § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 § 63.2435(a) § 63.2435(b) § 63.2435(b)(1) § 63.2435(b)(1)(i) § 63.2435(b)(1)(ii) § 63.2435(b)(2) § 63.2435(b)(3) § 63.2440(a) § 63.2440(b) § 63.2445(b) § 63.2445(d) § 63.2445(g) | For all equipment that is in organic HAP service and that is part of any MCPU, comply with the requirements of subpart H of this part and the requirements referenced therein, except as specified in §63.2480(b) and (d) through (f). | [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d) § 63.2480(b)(7) § 63.2480(e)(2)(ii) [G]§ 63.2480(e)(2) [G]§ 63.2480(e)(3) [G]§ 63.2480(e)(4) [G]§ 63.2480(e)(5) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f) § 63.2445(g)(7) § 63.2525(a) [G]§ 63.2525(b) § 63.2525(f) § 63.2525(j) [G]§ 63.2525(p) [G]§ 63.2525(q) § 63.2525(t) § 63.2525(u)(1) § 63.2525(u)(2) § 63.2525(u)(3) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) § 63.2445(c) § 63.2445(g)(7) § 63.2450(m)(1) § 63.2450(m)(2) § 63.2450(m)(3) § 63.2515(a) § 63.2515(b)(1) § 63.2515(d) § 63.2520(a) § 63.2520(a) -Table 11.1 § 63.2520(a) -Table 11.2 § 63.2520(a) -Table 11.3 [G]§ 63.2520(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) |
|---------------------------|-------------------------|---------------|----------------|---------------------------------------|--|---|---|---|--|
| | | | | | § 63.2445(g)(1) § 63.2445(g)(4) § 63.2445(h) § 63.2450(a) § 63.2450(a)(2) § 63.2450(g)(7) § 63.2480(a) § 63.2480(b) § 63.2480(b)(3) § 63.2480(b)(5) § 63.2480(b)(6) § 63.2480(e) § 63.2480(e)(1) § 63.2480(e)(2)(ii) [G]§ 63.2480(e)(3) [G]§ 63.2480(e)(4) [G]§ 63.2480(e)(5) [G]§ 63.2480(e)(6) [G]§ 63.2480(e)(7) § 63.2480(f)(1) § 63.2480(f)(2) § 63.2480(f)(3) [G]§ 63.2535(k) § 63.2540 | | | § 63.2520(d) § 63.2520(d)(1) § 63.2520(d)(2) § 63.2520(d)(2)(i) § 63.2520(d)(2)(ii) § 63.2520(d)(2)(iii) § 63.2520(d)(2)(iv) § 63.2520(d)(2)(v) § 63.2520(d)(2)(vi) § 63.2520(d)(2)(vii) [G]§ 63.2520(d)(4) § 63.2520(e) § 63.2520(e)(1) § 63.2520(e)(10) [G]§ 63.2520(e)(10)(i) § 63.2520(e)(10)(ii)(C) [G]§ 63.2520(e)(14) [G]§ 63.2520(e)(15) § 63.2520(e)(2) § 63.2520(e)(3) § 63.2520(e)(4) § 63.2520(e)(5)(i) § 63.2520(e)(5)(ii) § 63.2520(e)(5)(ii)(A) § 63.2520(e)(5)(ii)(B) § 63.2520(e)(5)(ii)(D) § 63.2520(e)(5)(iii)(C) § 63.2520(e)(5)(iii)(E) § 63.2520(e)(7) § 63.2520(e)(9) | |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Connectors in heavy liquid service. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) | 40 CFR Part 63, | [G]§ 63.169 | Standards: Agitators in | [G]§ 63.169 | § 63.181(a) | [G]§ 63.182(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) |
|---------------------------|-------------------------|---------------|----------------|---------------------------------------|---|--|---|---|--|
| | | | HAPS | Subpart H | § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | heavy liquid service. §63.169(a)-(d) | [G]§ 63.180(b) [G]§ 63.180(d) | [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i) | [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Instrumentation systems. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Pressure relief devices in liquid service. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | § 63.170 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Surge control vessels and bottom receivers. | [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.173 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Agitators gas/vapor service and in light liquid service. §63.173(a)-(j). | [G]§ 63.173 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.174 § 63.162(a) § 63.162(c) | Standards: Connectors in gas/vapor service and in light liquid service. | [G]§ 63.174 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) |

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]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | §63.174(a)-(j) | | [G]§ 63.181(d) | [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.163 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.176 | Standards: Pumps in light liquid service. §63.163(a)-(j) | [G]§ 63.163 [G]§ 63.176 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(3) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) § 63.181(h)(8) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175 | Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j) | [G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.167 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Open-ended valves or lines. §63.167(a)-(e). | [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) | Standards: Valves in heavy liquid service. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) |

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) |
|---------------------------|-------------------------|---------------|----------------|---------------------------------------|--|--|--|---|---|
| | | | | | § 63.162(h) [G]§ 63.171 | | | | [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Pumps in heavy liquid service. §63.169(a)-(d) | [G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Sampling connection systems. §63.166(a)-(c) | [G]§ 63.180(b) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | § 63.162(e) § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) | Equipment that is in organic HAP service less than 300 hours per year is excluded from the requirements of §§63.163 - 63.174 and §63.178 if it is identified as required in §63.181(j). | [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i) § 63.181(j) | [G]§ 63.182(a) [G]§ 63.182(b) |
| PRODFUG | EU | 63H-ALL | 112(B) HAPS | 40 CFR Part 63, Subpart H | [G]§ 63.164 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 | Standards: Compressors. §63.164(a)-(i) | [G]§ 63.164 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d) | § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(f) | [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d) |
| PROFINSH G3 | PRO | 60DDD-01 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562- | For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified. | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) | § 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(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) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|---|---|--|--|---|
| | | | | | 1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e) | | § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g) | § 60.565(j) | § 60.565(k)(4) § 60.565(l) |
| PROFINSH G3 | PRO | 60DDD-02 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.560(g) | Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1). | [G]§ 60.564(d) | § 60.565(a) § 60.565(a)(10) § 60.565(h) | § 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7) |
| PROMATRC V | EU | 60DDD-01 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e) | Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction/replacement, the vent stream is exempted. | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j) | § 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l) |
| PROMATRC V | PRO | 60DDD-02 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e) | For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified. | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j) | § 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) [G]§ 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l) |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|---|--|--|--|--|
| PROMATRV G1 | EU | 60DDD-01 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e) | Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction/ replacement, the vent stream is exempted. | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j) | § 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l) |
| PROMATRV G1 | PRO | 60DDD-02 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e) | For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified. | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j) | § 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l) |
| PROMATRV G2 | EU | 60DDD-01 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e) | Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction/ replacement, the vent stream is exempted. | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j) | § 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l) |
| PROMATRV G2 | PRO | 60DDD-02 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) | For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) | § 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(j) |

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) |
|---------------------------|-------------------------|---------------|-----------|---------------------------------------|---|--|--|--|--|
| | | | | | § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e) | which continuous emissions to control as specified. | § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) [G]§ 60.564(f) [G]§ 60.564(g) | [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j) | § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l) |
| PROREACT G3 | EU | 60DDD-01 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e) | Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction/ replacement, the vent stream is exempted. | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j) | § 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l) |
| PROREACT G3 | PRO | 60DDD-02 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.560(g) | Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1). | [G]§ 60.564(d) | § 60.565(a) § 60.565(a)(10) § 60.565(h) | § 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7) |
| PROREACT G3 | PRO | 60DDD-03 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(1) § 60.18 § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(iii) § 60.562-1(a)(1)(iii)(A) § 60.562-1(d) § 60.562-1(e) | For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions to control as specified. | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(d) [G]§ 60.564(e) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(3) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j) | § 60.565(a) [G]§ 60.565(a)(3) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l) |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-----------|--|--|--|---|--|--|
| | | | | | | | [G]§ 60.564(f) [G]§ 60.564(g) | | |
| PRORMC22-2 | EU | 60DDD-01 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e) | Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction/ replacement, the vent stream is exempted. | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j) | § 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l) |
| PRORMHEX A | EU | 60DDD-01 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.562-1(a)(2) [G]§ 60.562-1(a)(2)(i) § 60.562-1(d) § 60.562-1(e) | Each vent stream that emits intermittent emissions as defined in §60.560-1(a)(1) shall be controlled as specified; prior to control modification/reconstruction/ replacement, the vent stream is exempted. | [G]§ 60.563(a) § 60.563(b) § 60.563(b)(2)(ii) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2) § 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(e) | [G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(5) [G]§ 60.565(b)(2) [G]§ 60.565(e) [G]§ 60.565(g) § 60.565(j) | § 60.565(a) [G]§ 60.565(a)(5) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k) § 60.565(k)(2) § 60.565(k)(4) § 60.565(l) |
| PROSTORE G3 | PRO | 60DDD-01 | VOC/TOC | 40 CFR Part 60, Subpart DDD | § 60.560(g) | Vent streams emitting continuous emissions with uncontrolled annual emissions of < 1.6 Mg/yr (1.76 Tons/yr) or with weight % TOC of < 0.10 % from facilities as specified, exempted from §60.562-1(a)(1). | [G]§ 60.564(d) | § 60.565(a) § 60.565(a)(10) § 60.565(h) | § 60.565(a) § 60.565(a)(10) § 60.565(k) § 60.565(k)(6) § 60.565(k)(7) |
| TOLUENEL D | EU | R5211-01 | VOC | 30 TAC Chapter 115, Loading and Unloading of VOC | § 115.217(b)(2) § 115.214(b)(1)(B) § 115.214(b)(1)(D) § 115.214(b)(1)(D)(i) | All land-based loading and unloading of VOC with a true vapor pressure less than 1.5 psia under actual storage conditions is exempt from the | § 115.214(b)(1)(A) § 115.214(b)(1)(A)(i) § 115.215 § 115.215(4) | § 115.216 § 115.216(2) § 115.216(3)(B) | None |

Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---------------------------|-------------------------|---------------|-------------|---------------------------------------|---|--|-------------------------------------|---|---|
| | | | | | | requirements of the division (relating to Loading and Unloading of VOCs), except as specified. | | | |
| TOLUENEUL | EU | 63EEEE-01 | 112(B) HAPS | 40 CFR Part 63, Subpart EEEE | § 63.2343(a) | For each transfer rack subject to this subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each transfer rack identified in §63.2343(a) is not required to be controlled. | None | § 63.2343(a) | None |

Additional Monitoring Requirements

Compliance Assurance Monitoring Summary 66

Periodic Monitoring Summary 68

CAM Summary

| Unit/Group/Process Information | |
|---|------------------------------------|
| ID No.: GRP-CAM | |
| Control Device ID No.: 245 | Control Device Type: Fabric filter |
| Control Device ID No.: 510 | Control Device Type: Fabric filter |
| Control Device ID No.: 511 | Control Device Type: Fabric filter |
| Control Device ID No.: 512 | Control Device Type: Fabric filter |
| Control Device ID No.: 513 | Control Device Type: Fabric filter |
| Control Device ID No.: 595 | Control Device Type: Fabric filter |
| Control Device ID No.: 725 | Control Device Type: Fabric filter |
| Control Device ID No.: 768 | Control Device Type: Fabric filter |
| Control Device ID No.: A-405 | Control Device Type: Fabric filter |
| Control Device ID No.: A-406 | Control Device Type: Fabric filter |
| Control Device ID No.: A-409 | Control Device Type: Fabric filter |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 111, Nonagricultural Processes | SOP Index No.: R1151-01 |
| Pollutant: PM | Main Standard: § 111.151(a) |
| Monitoring Information | |
| Indicator: Visible Emissions | |
| Minimum Frequency: Once per day | |
| Averaging Period: N/A | |
| Deviation Limit: A deviation shall be reported if visible emissions are observed or if opacity exceeds 20% averaged over a six minute period. | |
| <p>CAM Text: Visible emissions observations shall be made and recorded in accordance with the requirements specified in 40 CFR § 64.7(c). Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity, consistent with Test Method 9, as soon as practicable but no later than 24 hours after observing visible emissions. If a Test Method 9 is performed, the opacity limit is the corresponding opacity limit associated with the particulate matter standard in the underlying applicable requirement. If the result of Test Method 9 is opacity above the corresponding opacity limit (associated with the particulate matter standard in the underlying applicable requirement or as identified as a result of a previous performance test to establish the maximum opacity limit), the permit holder shall report a deviation.</p> | |

CAM Summary

| Unit/Group/Process Information | |
|---|------------------------------------|
| ID No.: GRP-VNT2CAM | |
| Control Device ID No.: 1053 | Control Device Type: Fabric filter |
| Control Device ID No.: 504 | Control Device Type: Fabric filter |
| Control Device ID No.: 505 | Control Device Type: Fabric filter |
| Control Device ID No.: 506 | Control Device Type: Fabric filter |
| Control Device ID No.: 507 | Control Device Type: Fabric filter |
| Control Device ID No.: 508 | Control Device Type: Fabric filter |
| Control Device ID No.: 509 | Control Device Type: Fabric filter |
| Control Device ID No.: 722 | Control Device Type: Fabric filter |
| Control Device ID No.: 723 | Control Device Type: Fabric filter |
| Control Device ID No.: 724 | Control Device Type: Fabric filter |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 111, Nonagricultural Processes | SOP Index No.: R1151-01 |
| Pollutant: PM | Main Standard: § 111.151(a) |
| Monitoring Information | |
| Indicator: Visible Emissions | |
| Minimum Frequency: Once per day | |
| Averaging Period: N/A | |
| Deviation Limit: A deviation shall be reported if visible emissions are observed or if opacity exceeds 20% averaged over a six minute period. | |
| <p>CAM Text: Visible emissions observations shall be made and recorded in accordance with the requirements specified in 40 CFR § 64.7(c). Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity, consistent with Test Method 9, as soon as practicable but no later than 24 hours after observing visible emissions. If a Test Method 9 is performed, the opacity limit is the corresponding opacity limit associated with the particulate matter standard in the underlying applicable requirement. If the result of Test Method 9 is opacity above the corresponding opacity limit (associated with the particulate matter standard in the underlying applicable requirement or as identified as a result of a previous performance test to establish the maximum opacity limit), the permit holder shall report a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|-----------------------------------|
| ID No.: 1351 | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 111, Visible Emissions | SOP Index No.: R1111-01 |
| Pollutant: Opacity | Main Standard: § 111.111(a)(1)(B) |
| Monitoring Information | |
| Indicator: Visible Emissions | |
| Minimum Frequency: Once per week | |
| Averaging Period: N/A | |
| Deviation Limit: A deviation shall be reported if visible emissions are observed or if opacity exceeds 20% averaged over a six-minute period. | |
| <p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|-----------------------------------|
| ID No.: 1352 | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 111, Visible Emissions | SOP Index No.: R1111-01 |
| Pollutant: Opacity | Main Standard: § 111.111(a)(1)(B) |
| Monitoring Information | |
| Indicator: Visible Emissions | |
| Minimum Frequency: Once per week | |
| Averaging Period: N/A | |
| Deviation Limit: A deviation shall be reported if visible emissions are observed or if opacity exceeds 20% averaged over a six-minute period. | |
| <p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: 2910 | |
| Control Device ID No.: 705 | Control Device Type: Flare |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Pilot Flame | |
| Minimum Frequency: Once per hour | |
| Averaging Period: N/A | |
| Deviation Limit: Absence of pilot flame. | |
| <p>Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: 2910 | |
| Control Device ID No.: 705 | Control Device Type: Flare |
| Applicable Regulatory Requirement | |
| Name: 40 CFR Part 60, Subpart Kb | SOP Index No.: 60KB-01 |
| Pollutant: VOC | Main Standard: § 60.112b(b)(1) |
| Monitoring Information | |
| Indicator: VOC Concentration | |
| Minimum Frequency: Once per year | |
| Averaging Period: N/A | |
| Deviation Limit: No detectable emissions as indicated by an instrument reading of less than 500 ppm above background. | |
| Periodic Monitoring Text: Measure and record fugitive emissions from the vapor collection system in accordance with part 60, appendix A, method 21. | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: 2910 | |
| Control Device ID No.: 705 | Control Device Type: Flare |
| Applicable Regulatory Requirement | |
| Name: 40 CFR Part 60, Subpart Kb | SOP Index No.: 60KB-01 |
| Pollutant: VOC | Main Standard: § 60.112b(b)(1) |
| Monitoring Information | |
| Indicator: Visual Inspection | |
| Minimum Frequency: Once per year | |
| Averaging Period: N/A | |
| Deviation Limit: Visual inspections that detect cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices. | |
| Periodic Monitoring Text: Visually inspect all components of the vapor collection system for defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions. | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: 2911 | |
| Control Device ID No.: 705 | Control Device Type: Flare |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Pilot Flame | |
| Minimum Frequency: Once per hour | |
| Averaging Period: N/A | |
| Deviation Limit: Absence of pilot flame. | |
| <p>Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: 2911 | |
| Control Device ID No.: 705 | Control Device Type: Flare |
| Applicable Regulatory Requirement | |
| Name: 40 CFR Part 60, Subpart Kb | SOP Index No.: 60KB-01 |
| Pollutant: VOC | Main Standard: § 60.112b(b)(1) |
| Monitoring Information | |
| Indicator: VOC Concentration | |
| Minimum Frequency: Once per year | |
| Averaging Period: N/A | |
| Deviation Limit: No detectable emissions as indicated by an instrument reading of less than 500 ppm above background. | |
| Periodic Monitoring Text: Measure and record fugitive emissions from the vapor collection system in accordance with part 60, appendix A, method 21. | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: 2911 | |
| Control Device ID No.: 705 | Control Device Type: Flare |
| Applicable Regulatory Requirement | |
| Name: 40 CFR Part 60, Subpart Kb | SOP Index No.: 60KB-01 |
| Pollutant: VOC | Main Standard: § 60.112b(b)(1) |
| Monitoring Information | |
| Indicator: Visual Inspection | |
| Minimum Frequency: Once per year | |
| Averaging Period: N/A | |
| Deviation Limit: Visual inspections that detect cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices. | |
| Periodic Monitoring Text: Visually inspect all components of the vapor collection system for defects, such as cracks, holes, gaps, loose connections, or broken or missing covers or other closure devices, that could result in air emissions. | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|--|--------------------------------|
| ID No.: 530 | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Liquid Level | |
| Minimum Frequency: Once per day | |
| Averaging Period: N/A | |
| Deviation Limit: Fill pipe must be submerged at all times. | |
| Periodic Monitoring Text: Regardless of the location of the fill pipe, the fill pipe must be submerged at all times. Monitor and record the depth of the liquid using an automated/remote sounding device or liquid level sensing alarm/monitor. It shall be considered and reported as a deviation any time the liquid level falls below the fill pipe level. | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: 530 | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Structural Integrity of the Pipe | |
| Minimum Frequency: Emptied and degassed | |
| Averaging Period: N/A | |
| Deviation Limit: Fill pipe must be repaired (if necessary) prior to filling the tank. | |
| <p>Periodic Monitoring Text: Inspect to determine the structural integrity of the fill pipe and record each time the storage vessel is emptied and degassed. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: C-3520 | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Pilot Flame | |
| Minimum Frequency: Once per hour | |
| Averaging Period: N/A | |
| Deviation Limit: Absence of flare pilot flame | |
| <p>Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|------------------------------------|
| ID No.: GRP-CAM | |
| Control Device ID No.: 245 | Control Device Type: Fabric filter |
| Control Device ID No.: 510 | Control Device Type: Fabric filter |
| Control Device ID No.: 511 | Control Device Type: Fabric filter |
| Control Device ID No.: 512 | Control Device Type: Fabric filter |
| Control Device ID No.: 513 | Control Device Type: Fabric filter |
| Control Device ID No.: 595 | Control Device Type: Fabric filter |
| Control Device ID No.: 725 | Control Device Type: Fabric filter |
| Control Device ID No.: 768 | Control Device Type: Fabric filter |
| Control Device ID No.: A-405 | Control Device Type: Fabric filter |
| Control Device ID No.: A-406 | Control Device Type: Fabric filter |
| Control Device ID No.: A-409 | Control Device Type: Fabric filter |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 111, Visible Emissions | SOP Index No.: R1111-01 |
| Pollutant: Opacity | Main Standard: § 111.111(a)(1)(B) |
| Monitoring Information | |
| Indicator: Visible Emissions | |
| Minimum Frequency: Once per calendar quarter | |
| Averaging Period: N/A | |
| Deviation Limit: A deviation shall be reported if visible emissions are observed or if opacity exceeds 20% averaged over a six minute period. | |
| <p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: GRP-TK3 | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Pilot Flame | |
| Minimum Frequency: Once per hour | |
| Averaging Period: N/A | |
| Deviation Limit: Absence of flare pilot flame | |
| <p>Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: GRP-TK4 | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Pilot Flame | |
| Minimum Frequency: Once per hour | |
| Averaging Period: N/A | |
| Deviation Limit: Absence of flare pilot flame | |
| <p>Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: GRP-TK5 | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Pilot Flame | |
| Minimum Frequency: Once per hour | |
| Averaging Period: N/A | |
| Deviation Limit: Absence of flare pilot flame | |
| <p>Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|-----------------------------------|
| ID No.: GRP-VNT2 | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 111, Visible Emissions | SOP Index No.: R1111-01 |
| Pollutant: Opacity | Main Standard: § 111.111(a)(1)(B) |
| Monitoring Information | |
| Indicator: Visible Emissions | |
| Minimum Frequency: Once per calendar quarter | |
| Averaging Period: N/A | |
| Deviation Limit: A deviation shall be reported if visible emissions are observed or if opacity exceeds 20% averaged over a six minute period. | |
| <p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|------------------------------------|
| ID No.: GRP-VNT2CAM | |
| Control Device ID No.: 1053 | Control Device Type: Fabric filter |
| Control Device ID No.: 504 | Control Device Type: Fabric filter |
| Control Device ID No.: 505 | Control Device Type: Fabric filter |
| Control Device ID No.: 506 | Control Device Type: Fabric filter |
| Control Device ID No.: 507 | Control Device Type: Fabric filter |
| Control Device ID No.: 508 | Control Device Type: Fabric filter |
| Control Device ID No.: 509 | Control Device Type: Fabric filter |
| Control Device ID No.: 722 | Control Device Type: Fabric filter |
| Control Device ID No.: 723 | Control Device Type: Fabric filter |
| Control Device ID No.: 724 | Control Device Type: Fabric filter |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 111, Visible Emissions | SOP Index No.: R1111-01 |
| Pollutant: Opacity | Main Standard: § 111.111(a)(1)(B) |
| Monitoring Information | |
| Indicator: Visible Emissions | |
| Minimum Frequency: Once per calendar quarter | |
| Averaging Period: N/A | |
| Deviation Limit: A deviation shall be reported if visible emissions are observed or if opacity exceeds 20% averaged over a six minute period. | |
| <p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: LP1RRICATK | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Pilot Flame | |
| Minimum Frequency: Once per hour | |
| Averaging Period: N/A | |
| Deviation Limit: Absence of flare pilot flame | |
| <p>Periodic Monitoring Text: Measure and record the presence of the pilot flame or maintain records of alarm events and duration of alarm events. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame or using an alarm that uses a thermocouple or other equivalent device to detect the absence of a flame. The monitoring instrumentation shall be maintained, calibrated and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data which indicates the lack of a pilot flame shall be considered and reported as a deviation.</p> | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|--|--------------------------------|
| ID No.: LP1RTFT2TK | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Liquid Level | |
| Minimum Frequency: Once per day | |
| Averaging Period: N/A | |
| Deviation Limit: Fill pipe must be submerged at all times | |
| Periodic Monitoring Text: Regardless of the location of the fill pipe, the fill pipe must be submerged at all times. Monitor and record the depth of the liquid using an automated/remote sounding device or liquid level sensing alarm/monitor. It shall be considered and reported as a deviation any time the liquid level falls below the fill pipe level. | |

Periodic Monitoring Summary

| Unit/Group/Process Information | |
|---|--------------------------------|
| ID No.: LP1RTFT2TK | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| Applicable Regulatory Requirement | |
| Name: 30 TAC Chapter 115, Storage of VOCs | SOP Index No.: R5112-01 |
| Pollutant: VOC | Main Standard: § 115.112(c)(1) |
| Monitoring Information | |
| Indicator: Structural Integrity of the Pipe | |
| Minimum Frequency: Emptied and degassed | |
| Averaging Period: N/A | |
| Deviation Limit: Fill pipe must be repaired (if necessary) prior to filling the tank | |
| <p>Periodic Monitoring Text: Inspect to determine the structural integrity of the fill pipe and record each time the storage vessel is emptied and degassed. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.</p> | |

New Source Review Authorization References

New Source Review Authorization References 89

New Source Review Authorization References by Emission Unit 90

New Source Review Authorization References

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

| Prevention of Significant Deterioration (PSD) Permits | |
|---|------------------------------|
| PSD Permit No.: PSDTX118M4 | Issuance Date: 10/17/2025 |
| Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area. | |
| Authorization No.: 1567 | Issuance Date: 05/03/2024 |
| Authorization No.: 3639 | Issuance Date: 05/03/2024 |
| Authorization No.: 6141A | Issuance Date: 10/05/2023 |
| Authorization No.: 6361 | Issuance Date: 05/03/2024 |
| Authorization No.: 18773 | Issuance Date: 10/17/2025 |
| Authorization No.: 78664 | Issuance Date: 08/06/2024 |
| Authorization No.: 147336 | Issuance Date: 07/25/2017 |
| Authorization No.: 168899 | Issuance Date: 05/11/2022 |
| Authorization No.: 168900 | Issuance Date: 05/09/2022 |
| Permits By Rule (30 TAC Chapter 106) for the Application Area | |
| Number: 34 | Version No./Date: 09/12/1989 |
| Number: 82 | Version No./Date: 04/05/1995 |
| Number: 106.261 | Version No./Date: 11/01/2003 |
| Number: 106.262 | Version No./Date: 11/01/2003 |
| Number: 106.263 | Version No./Date: 11/01/2001 |

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** |
|---------------------------|---------------------------------|--|
| 1007 | CATALYST BIN 31 LOADING | 1567, PSDTX118M4 |
| 1009 | CAT. CONTAINER LOADING: Y352 | 1567, PSDTX118M4 |
| 1043 | G1750 SAMPLE PUGER | 3639, PSDTX118M4 |
| 1044 | SOUTH ETHYLENE SIEVE VENT | 1567, PSDTX118M4 |
| 1045 | WEST ETHYLENE SIEVE VENT | 1567, PSDTX118M4 |
| 1046 | ISOPENTANE BEDS | 1567, PSDTX118M4 |
| 1047 | BUTENE BEDS | 1567, PSDTX118M4 |
| 1048 | HEXENE BEDS | 1567, PSDTX118M4 |
| 1052 | #1 GRANULAR MAKE BAGHOUSE | 6141A, PSDTX118M4 |
| 1053 | #2 GRANULAR MAKE BAGHOUSE | 6141A, PSDTX118M4 |
| 1053A | #2 GRANULAR MAKE DUST COLLECTOR | 6141A, PSDTX118M4 |
| 1079 | CATALYST WASH POT | 3639, PSDTX118M4 |
| 1080 | CATALYST WASH POT | 3639, PSDTX118M4 |
| 1081 | CATALYST WASH POT | 1567, PSDTX118M4 |
| 1082 | CATALYST WASH POT | 1567, PSDTX118M4 |
| 1083 | CATALYST WASH POT | 1567, PSDTX118M4 |
| 1084 | CATALYST WASH POT | 1567, PSDTX118M4 |
| 1085 | CATALYST WASH POT | 1567, PSDTX118M4 |
| 1086 | CATALYST WASH POT | 6141A, PSDTX118M4 |
| 1100 | CATALYST UNIT FLARE | 6361, PSDTX118M4, 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |

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** |
|---------------------------|--|--|
| 1127 | G-2 BLENDER BLOW TANK FILTER | 1567, PSDTX118M4 |
| 1128 | G-4 BLENDER BLOW TANK FILTER | 1567, PSDTX118M4 |
| 1130 | ME DRUM LINER WASHING | 6361, PSDTX118M4 |
| 1130A | NO. 5 ACTIVATOR VENT FILTER | 1567, PSDTX118M4, 106.261/11/01/2003 [114503], 106.262/11/01/2003 [114503] |
| 1131A | NO. 5 ACTIVATOR BLOW TANK VENT FILTER | 1567, PSDTX118M4, 106.261/11/01/2003 [114503], 106.262/11/01/2003 [114503] |
| 1132A | NO. 5 ACTIVATOR RECEIVER TANK VENT FILTER | 1567, PSDTX118M4, 106.261/11/01/2003 [114503], 106.262/11/01/2003 [114503] |
| 1143D | CONTAINER LOADING FILTER | 6361, PSDTX118M4 |
| 1152A | PRODUCT CONTAINER VENT | 1567, PSDTX118M4 |
| 1152B | PRODUCT CONTAINER VENT | 1567, PSDTX118M4 |
| 1161 | SILICA DEHYDRATOR | 6361, PSDTX118M4, 106.261/11/01/2003 [114503], 106.262/11/01/2003 [114503] |
| 1301 | NO. 6 ACTIVATOR ACID K.O. POT VENT | 106.261/11/01/2003, 106.262/11/01/2003 |
| 1302 | NO. 6 ACTIVATOR BLOW TANK VENT FILTER | 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |
| 1303 | NO. 6 ACTIVATOR RECEIVER TANK FILTER | 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |
| 1304 | G8 BLENDER BLOW TANK VENT FILTER | 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |
| 1306 | CATALYST STORAGE BIN VENT FILTER (CY-4740) | 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |
| 1307 | CATALYST STORAGE BIN VENT FILTER (CY-4741) | 106.261/11/01/2003 [145327], 106.262/11/01/2003 |

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** |
|---------------------------|--|--|
| | | [145327] |
| 1308 | CATALYST LOADING BIN VENT FILTER (CY-4742) | 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |
| 1309 | PRODUCT CYLINDER VENT FILTER (CY-4743) | 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |
| 1350 | PRODIGY FLARE | 106.261/11/01/2003 [159156], 106.262/11/01/2003 [159156] |
| 1351 | SILICA SEAL POT | 106.261/11/01/2003 [159156], 106.262/11/01/2003 [159156] |
| 1352 | ADDITIVE SOLID PM FILTER | 106.261/11/01/2003 [159156], 106.262/11/01/2003 [159156] |
| 191 | UNIT MAKE BIN 841 | 3639, PSDTX118M4 |
| 192 | UNIT MAKE BIN 842 | 3639, PSDTX118M4 |
| 193 | UNIT MAKE BIN 843 | 3639, PSDTX118M4 |
| 194 | UNIT MAKE BIN 844 | 3639, PSDTX118M4 |
| 196 | UNIT MAKE BIN 846 | 3639, PSDTX118M4 |
| 197 | UNIT MAKE BIN 847 | 3639, PSDTX118M4 |
| 198 | UNIT MAKE BIN 848 | 3639, PSDTX118M4 |
| 199 | UNIT MAKE BIN 851 | 3639, PSDTX118M4 |
| 200 | UNIT MAKE BIN 852 | 3639, PSDTX118M4 |
| 201 | UNIT MAKE BIN 853 | 3639, PSDTX118M4 |
| 202 | UNIT MAKE BIN 854 | 3639, PSDTX118M4 |

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** |
|---------------------------|------------------------------------|--|
| 203 | UNIT MAKE BIN 855 | 3639, PSDTX118M4 |
| 204 | UNIT MAKE BIN 856 | 3639, PSDTX118M4 |
| 205 | UNIT MAKE BIN 857 | 3639, PSDTX118M4 |
| 206 | UNIT MAKE BIN 858 | 3639, PSDTX118M4 |
| 230 | G-5 BLENDER BLOW TANK FILTER | 6361, PSDTX118M4, 106.261/11/01/2003 [114503], 106.262/11/01/2003 [114503] |
| 2301 | #7 ACTIVATOR ACID K.O. POT | 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |
| 2302 | #7 ACTIVATOR BLOW TANK VENT FILTER | 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |
| 2303 | #7 ACTIVATOR RECEIVER TANK FILTER | 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |
| 2304 | G9 BLENDER BLOW TANK VENT FILTER | 106.261/11/01/2003 [145327], 106.262/11/01/2003 [145327] |
| 232 | CATALYST BINS 16-20 FILTER | 6361, PSDTX118M4 |
| 234 | BLOCK 25 SILO 101 BAGHOUSE | 1567, PSDTX118M4 |
| 235 | BLOCK 25 SILO 102 BAGHOUSE | 1567, PSDTX118M4 |
| 236 | BLOCK 25 SILO 103 BAGHOUSE | 1567, PSDTX118M4 |
| 237 | BLOCK 25 SILO 104 BAGHOUSE | 1567, PSDTX118M4 |
| 238 | BLOCK 25 SILO 105 BAGHOUSE | 1567, PSDTX118M4 |
| 239 | BLOCK 25 SILO 106 BAGHOUSE | 1567, PSDTX118M4 |
| 240 | BLOCK 25 SILO 107 BAGHOUSE | 1567, PSDTX118M4 |

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** |
|---------------------------|--------------------------------|--|
| 241 | BLOCK 25 SILO 201 BAGHOUSE | 1567, PSDTX118M4 |
| 242 | BLOCK 25 SILO 202 BAGHOUSE | 1567, PSDTX118M4 |
| 243 | BLOCK 25 SILO 203 BAGHOUSE | 1567, PSDTX118M4 |
| 244 | BLOCK 25 204 BAGHOUSE | 1567, PSDTX118M4 |
| 245 | BLOCK 25 Y-SYSTEM BAGHOUSE | 1567, PSDTX118M4 |
| 246 | LARGE FLARE | 1567, 3639, 6141A, 6361, 18773, PSDTX118M4, 106.261/11/01/2003 [114503, 169034], 106.262/11/01/2003 [114503, 169034] |
| 248 | G5 SEAL OIL SYSTEM VENT | 1567, PSDTX118M4 |
| 2910 | STORAGE TANK 2910 | 18773, PSDTX118M4 |
| 2911 | STORAGE TANK 2911 | 18773, PSDTX118M4 |
| 351 | G1750 SEAL OIL SYSTEM VENT | 3639, PSDTX118M4 |
| 387 | SILO 401 BAGHOUSE | 1567, PSDTX118M4 |
| 388 | SILO 402 BAGHOUSE | 1567, PSDTX118M4 |
| 389 | SILO 403 BAGHOUSE | 1567, PSDTX118M4 |
| 390 | SILO 404 BAGHOUSE | 1567, PSDTX118M4 |
| 391 | SILO 405 BAGHOUSE | 1567, PSDTX118M4 |
| 392 | SILO 406 BAGHOUSE | 1567, PSDTX118M4 |
| 393 | SILO 301 BAGHOUSE | 1567, PSDTX118M4 |
| 394 | SILO 302 BAGHOUSE | 1567, PSDTX118M4 |
| 395 | SILO 303 BAGHOUSE | 1567, PSDTX118M4 |

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** |
|---------------------------|--------------------------------------|-----------------------------------|
| 396 | SILO 304 BAGHOUSE | 1567, PSDTX118M4 |
| 397 | SILO 305 BAGHOUSE | 1567, PSDTX118M4 |
| 398 | SILO 306 BAGHOUSE | 1567, PSDTX118M4 |
| 399 | BLOCK 25 SILO 205 BAGHOUSE | 1567, PSDTX118M4 |
| 400 | BLOCK 25 SILO 206 BAGHOUSE | 1567, PSDTX118M4 |
| 415 | Z TRANSFER SYSTEM VACUUM BLOWER VENT | 1567, PSDTX118M4 |
| 436 | SEAL POT VENT | 6361, PSDTX118M4 |
| 441 | G1750 CAT. FEEDER VENT | 3639, PSDTX118M4 |
| 468 | CATALYST BIN 22 FILTER | 6361, PSDTX118M4 |
| 469 | CATALYST BIN 23 FILTER | 6361, PSDTX118M4 |
| 470 | CATALYST BIN 24 FILTER | 6361, PSDTX118M4 |
| 479 | #2 ACTIVATOR FILTER | 6141A, PSDTX118M4 |
| 483 | G-3 BLENDER BLOW TANK FILTER | 6141A, PSDTX118M4 |
| 484 | CATALYST BIN 25 FILTER | 6141A, PSDTX118M4 |
| 485 | CATALYST BIN 26 FILTER | 6141A, PSDTX118M4 |
| 488 | NORTH CATALYST BLOW TANK | 6141A, PSDTX118M4 |
| 489 | CENTER CATALYST BLOW TANK | 6141A, PSDTX118M4 |
| 490 | SOUTH CATALYST BLOW TANK | 6141A, PSDTX118M4 |
| 491 | G1 CATALYST FEEDER FILTER | 6141A, PSDTX118M4 |
| 492 | G1 CATALYST FEEDER FILTER | 6141A, PSDTX118M4 |
| 493 | G2 CATALYST FEEDER FILTER | 6141A, PSDTX118M4 |

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** |
|---------------------------|--------------------------------|-----------------------------------|
| 494 | G2 CATALYST FEEDER FILTER | 6141A, PSDTX118M4 |
| 495 | G1 SEAL OIL SYSTEM VENT | 6141A, PSDTX118M4 |
| 496 | G2 SEAL OIL SYSTEM VENT | 6141A, PSDTX118M4 |
| 504 | RESIN BIN 101 | 6141A, PSDTX118M4 |
| 505 | RESIN BIN 102 | 6141A, PSDTX118M4 |
| 506 | RESIN BIN 103 | 6141A, PSDTX118M4 |
| 507 | RESIN BIN 201 | 6141A, PSDTX118M4 |
| 508 | RESIN BIN 202 | 6141A, PSDTX118M4 |
| 509 | RESIN BIN 203 | 6141A, PSDTX118M4 |
| 510 | #1 TRANSFER CONVEYOR SEPARATOR | 6141A, PSDTX118M4 |
| 511 | #2 TRANSFER CONVEYOR SEPARATOR | 6141A, PSDTX118M4 |
| 512 | #1 LOADING CONVEYOR SEPARATOR | 6141A, PSDTX118M4 |
| 513 | #2 LOADING CONVEYOR SEPARATOR | 6141A, PSDTX118M4 |
| 530 | THF TANK | 1567, PSDTX118M4 |
| 535 | BIN 7117 FILTER | 1567, PSDTX118M4 |
| 535 L | BIN 7117 LOADING FILTER | 1567, PSDTX118M4 |
| 591 | P1 FEED HOPPER BAGHOUSE | 6141A, PSDTX118M4 |
| 594 | PELLET DRYER VENT | 6141A, PSDTX118M4 |
| 595 | P1 ELUTRIATOR FILTER | 6141A, PSDTX118M4 |
| 705 | SMALL FLARE | 1567, 6141A, 18773, PSDTX118M4 |
| 707 | G3 SEAL OIL SYSTEM VENT | 18773, PSDTX118M4 |

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** |
|---------------------------|--------------------------------|-----------------------------------|
| 720 | P3 MIX/FEED HOPPER BAGHS. | 18773, PSDTX118M4 |
| 721 | P3 PELLET DRYER | 18773, PSDTX118M4 |
| 722 | RESIN BIN 301 | 18773, PSDTX118M4 |
| 723 | RESIN BIN 302 | 18773, PSDTX118M4 |
| 724 | RESIN BIN 303 | 18773, PSDTX118M4 |
| 725 | PELLET LOADING FILTER | 18773, PSDTX118M4 |
| 761 H | CATALYST BIN 29 FILTER | 6141A, PSDTX118M4 |
| 762 H | CATALYST BIN 30 FILTER | 6141A, PSDTX118M4 |
| 768 | DEDICATED TRANSFER SYSTEM | 6141A, PSDTX118M4 |
| 771 | CATALYST BLOW TANK | 6141A, PSDTX118M4 |
| 772 | NO 3 ACTIVATOR FILTER | 6361, PSDTX118M4 |
| A-227 | #1 ACTIVATOR FILTER | 6361, PSDTX118M4 |
| A-233 | G-5 CATALYST FEEDER VENT | 1567, PSDTX118M4 |
| A-405 | LP1R BLND BIN BAGHOUSE #1 | 1567, PSDTX118M4 |
| A-406 | LP1R BLND BIN BAGHOUSE #2 | 1567, PSDTX118M4 |
| A-409 | LP1R BLND BIN BAGHOUSE #3 | 1567, PSDTX118M4 |
| C-3084 | SPENT ISOPENTANE TANK | 6361, PSDTX118M4 |
| C-3086 | WASTE TANK | 6361, PSDTX118M4 |
| C-3091 | ISOPENTANE TANK | 6361, PSDTX118M4 |
| C-3092 | ETHANOL TANK | 6361, PSDTX118M4 |
| C-3520 | THF SOLVENT TANK | 1567, PSDTX118M4 |

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** |
|---------------------------|----------------------------------|--|
| C-4501 | ISOPAR C STORAGE TANK | 106.261/11/01/2003 [159156], 106.262/11/01/2003 [159156] |
| ISOPARUL | ISOPAR C TRUCK UNLOADING | 106.261/11/01/2003 [159156], 106.262/11/01/2003 [159156] |
| LP1RC4BULT | BUTENE STORAGE BULLET | 1567, PSDTX118M4 |
| LP1RC6BULT | HEXENE TANK | 1567, PSDTX118M4 |
| LP1RCIC5TK | CRUDE ISOPENTANE TANK | 82/04/05/1995 |
| LP1RIC51DT | ISOPENTANE DUMP TANK #1 | 1567, PSDTX118M4 |
| LP1RRC5TK | REFINED ISOPENTANE TANK | 82/04/05/1995 |
| LP1RRC6TK | RINED HEXENE TANK #2 | 1567, PSDTX118M4 |
| LP1RRICATK | HEXANE TANK | 18773, PSDTX118M4 |
| LP1RTFT2TK | CO-CATALYST TANK #2 | 6361, PSDTX118M4 |
| LPPEFUG | APPLICATION AREA FUGITIVES | 1567, 3639, 6141A, 6361, 18773, PSDTX118M4 |
| MAOUL | MAO CYLINDER/ISOTAINER UNLOADING | 106.261/11/01/2003 [159156], 106.262/11/01/2003 [159156] |
| PRECLOAD | PRECURSOR WASTE LOADING | 6361, PSDTX118M4 |
| PROCATB | CATALYST FACILITIES - BATCH | 1567, 6141A, 6361, 18773, PSDTX118M4, 106.263/11/01/2001 |
| PROCATC | CATALYST FACILITIES - CONTINUOUS | 1567, 6141A, 6361, 18773, PSDTX118M4, 106.263/11/01/2001 |
| PRODFUG | PRODIGY AREA FUGITIVES | 106.261/11/01/2003 [159156], 106.262/11/01/2003 [159156] |
| PROFINSHG1 | FINISHING SECTION: LP-2 G1 | 6141A, PSDTX118M4, 106.263/11/01/2001 |

New Source Review Authorization References by Emissions Unit

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

| Unit/Group/Process ID No. | Emission Unit Name/Description | New Source Review Authorization** |
|---------------------------|--|--|
| PROFINSHG2 | FINISHING SECTION: LP-2 G2 | 6141A, PSDTX118M4, 106.263/11/01/2001 |
| PROFINSHG3 | FINISHING SECTION: LP-2 G3 | 18773, PSDTX118M4, 106.263/11/01/2001 |
| PROLP1R | LP-1 REACTION FACILITIES | 1567, 3639, PSDTX118M4, 106.263/11/01/2001 |
| PROMATRCV | RECOVERY SECTION: LP-2 G1/G2 | 6141A, PSDTX118M4, 106.263/11/01/2001 |
| PROMATRVG1 | RECOVERY SECTION: LP-2 G1 | 6141A, PSDTX118M4, 106.263/11/01/2001 |
| PROMATRVG2 | RECOVERY SECTION: LP-2 G2 | 6141A, PSDTX118M4, 106.263/11/01/2001 |
| PROREACTG1 | REACTION SECTION: LP-2 G1 | 6141A, PSDTX118M4, 106.263/11/01/2001 |
| PROREACTG2 | REACTION SECTION: LP-2 G2 | 6141A, PSDTX118M4, 106.263/11/01/2001 |
| PROREACTG3 | REACTION SECTION: LP-2 G3 | 18773, PSDTX118M4, 106.263/11/01/2001 |
| PRORMC21-1 | LP1ETHYLENE PREP. SECT. NO. 1 | 1567, PSDTX118M4, 106.263/11/01/2001 |
| PRORMC22-2 | LP2 ETHYLENE PREP. SECT. NO. 2 AT LP-2 | 1567, PSDTX118M4, 106.263/11/01/2001 |
| PRORMC4 | PREPARATION SECTION: BUTENE | 1567, 6141A, PSDTX118M4, 106.263/11/01/2001 |
| PRORMC5 | PREPARATION SECTION: ISOPENTANE | 1567, PSDTX118M4, 106.263/11/01/2001 |
| PRORMHEXA | PREPARATION SECTION: HEXANE | 18773, PSDTX118M4, 106.263/11/01/2001 |
| PRORMHEXE | PREPARATION SECTION: HEXENE | 1567, PSDTX118M4, 106.263/11/01/2001 |
| PROSTOREG1 | STORAGE SECTION: LP-2 G1 | 6141A, PSDTX118M4, 106.263/11/01/2001 |
| PROSTOREG2 | STORAGE SECTION: LP-2 G2 | 6141A, PSDTX118M4, 106.263/11/01/2001 |
| PROSTOREG3 | STORAGE SECTION: LP-2 G3 | 18773, PSDTX118M4, 106.263/11/01/2001 |
| TOLUENELD | SPENT TOLUENE LOADING | 106.261/11/01/2003 [159156], 106.262/11/01/2003 [159156] |
| TOLUENEUL | TOLUENE CYLINDER UNLOADING | 106.261/11/01/2003 [159156], 106.262/11/01/2003 |

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** |
|---------------------------|--------------------------------|-----------------------------------|
| | | [159156] |

**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 102

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 ₂ 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 _x | nitrogen oxides |
| NSPS | New Source Performance Standard (40 CFR Part 60) |
| NSR | New Source Review |
| ORIS | Office of Regulatory Information Systems |
| Pb | lead |
| PBR | Permit By Rule |
| 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 |
| RO | Responsible Official |
| SIP | state implementation plan |
| SO ₂ | sulfur dioxide |
| TCEQ | Texas Commission on Environmental Quality |
| TSP | total suspended particulate |
| TVP | true vapor pressure |
| U.S.C. | United States Code |
| VOC | volatile organic compound |

Appendix B

Major NSR Summary Table 104

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|---|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 233 | G5 Catalyst Feed Vent | PM | 0.01 | 0.01 | 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | VOC | 0.33 | 1.45 | | | |
| 245 | Y-System Baghouse Vent | PM | 0.10 | 0.19 | 2, 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.10 | 0.19 | | | |
| | | PM _{2.5} | 0.10 | 0.19 | | | |
| 246 | Large Flare | VOC | 214.30 | 65.32 | 4, 6, 13, 27, 14 | 4, 6, 13, 14, 26, 27 | 4, 6 |
| | | NOx | 31.48 | 17.76 | | | |
| | | CO (PSD) | 227.35 | 128.25 | | | |
| | | SO ₂ | 1.05 | 0.79 | | | |
| 246 | Large Flare (Start-Up, Shutdown, and Maintenance) | VOC | 507.88 | 4.38 | 13, 14, 27 | 13, 14, 26, 27 | 6 |
| | | NOx | 46.31 | 0.40 | | | |
| | | CO | 235.99 | 2.06 | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|---|--------------------------|----------------|----------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 248 | G5 Gas Compressor Seal Oil Vent | VOC | 0.27 | 1.16 | | | |
| 249 | Analyzer Vents | VOC | 0.32 | 1.37 | | | |
| 401, 402, 404, and 615 | X-1, X-2, X-5, and X-6 Transfer Systems | PM | 0.29 | 0.79 (7) | 2, 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.29 | 0.79 | | | |
| | | PM _{2.5} | 0.29 | 0.79 | | | |
| 403 | X-3 Transfer System | PM | 0.10 | 0.19 | 2, 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.10 | 0.19 | | | |
| | | PM _{2.5} | 0.10 | 0.19 | | | |
| 409 | Blending Bins Baghouse | PM | 7.20 | 2.70 | 2, 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 7.20 | 2.70 | | | |
| | | PM _{2.5} | 7.20 | 2.70 | | | |
| 415 | Z-Transfer System | PM | 0.12 | 0.56 | 2, 8, 10, 11, 12 | 8, 11, 12, 22, 26 | 8 |
| | | PM ₁₀ | 0.12 | 0.56 | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|--|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM _{2.5} | 0.12 | 0.56 | | | |
| 540 | Master Batch System Vent | PM | 0.02 | 0.01 | 2, 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.02 | 0.01 | | | |
| | | PM _{2.5} | 0.02 | 0.01 | | | |
| 1005 | G-5 Product Purge Bin Rotary Feeder Vent | PM | 0.02 | 0.08 | 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.02 | 0.08 | | | |
| | | PM _{2.5} | 0.02 | 0.08 | | | |
| 1029 | Resin Seed Bed Vent (8) | PM | 8.13 | 0.13 | | | |
| | | PM ₁₀ | 8.13 | 0.13 | | | |
| | | PM _{2.5} | 8.13 | 0.13 | | | |
| 1081 | Block 12 North Catalyst Wash Pot | VOC | 5.87 | 0.85 | | | |
| 1082 | Block 12 Middle Catalyst Wash Pot | VOC | 5.87 | 0.85 | | | |
| 1083 | Block 12 South Catalyst Wash Pot | VOC | 5.87 | 0.85 | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|-----------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 1084 | Block 25 Precursor Wash Pot | VOC | 5.87 | 1.45 | | | |
| 1085 | Block 25 G-2/G-4 Blender Wash Pot | VOC | 5.93 | 1.46 | | | |
| Silo Baghouses | | | | | | | |
| 234 H | Silo 101 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 235 H | Silo 102 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 236 H | Silo 103 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|-----------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 237 H | Silo 104 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 238 H | Silo 105 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 239 H | Silo 106 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|-----------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 240 H | Silo 107 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 241 H | Silo 201 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 242 H | Silo 202 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 243 H | Silo 203 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|-----------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 244 H | Silo 204 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 399 H | Silo 205 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 400 H | Silo 206 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|-----------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 387 H | Silo 401 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 388 H | Silo 402 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 389 H | Silo 403 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 390 H | Silo 404 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|-----------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 391 H | Silo 405 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 392 H | Silo 406 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 393 H | Silo 301 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|-----------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 394 H | Silo 302 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 395 H | Silo 303 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 396 H | Silo 304 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 397 H | Silo 305 Baghouse (6) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|--|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| 398 H | Silo 306 Baghouse (6) Total Silo Baghouse Cap (7) | PM | 0.21 | - | 2, 8, 21 | 8, 21, 22, 23, 24, 26 | 8 |
| | | PM ₁₀ | 0.21 | - | | | |
| | | PM _{2.5} | 0.21 | - | | | |
| | | VOC | 7.03 | - | | | |
| | | PM | - | 0.79 | | | |
| | | PM ₁₀ | - | 0.79 | | | |
| | | PM _{2.5} | - | 0.79 | | | |
| | | VOC | - | 11.46 | | | |
| Blending Bins | | | | | | | |
| 405 | North Blending Bin (6) | PM | 0.90 | - | | | |
| | | PM ₁₀ | 0.90 | - | | | |
| | | PM _{2.5} | 0.90 | - | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|---|--|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 406 | South Blending Bin (6) Total EPNs 405 and 406 Cap (7) | PM | 0.90 | - | 2, 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.90 | - | | | |
| | | PM _{2.5} | 0.90 | - | | | |
| | | PM | - | 0.49 | | | |
| | | PM ₁₀ | - | 0.49 | | | |
| | | PM _{2.5} | - | 0.49 | | | |
| 766-3 | Feed Stream Fugitives (5) | VOC | 8.57 | 37.58 | 4, 20 | 4, 20, 26 | 4 |
| 766-7 | Reactor Fugitives (5) | VOC | 5.77 | 25.28 | 4, 20 | 4, 20, 26 | 4 |
| Catalyst Expansion/Isopentane Recovery | | | | | | | |
| 1125 | No. 4 Activator Vent Filter | PM | 0.01 | 0.02 | 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.01 | 0.02 | | | |
| | | PM _{2.5} | 0.01 | 0.02 | | | |
| 1126 | No. 4 Activator Blow | PM | 0.01 | 0.01 | 8 | 8, 22, 26 | 8 |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|---|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | Tank Vent Filter | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| 1127 | G2 Blender Blow Tank Vent Filter | PM | 0.01 | 0.01 | 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | VOC | 0.11 | 0.54 | | | |
| 1128 | G4 Blender Blow Tank Vent Filter | PM | 0.01 | 0.01 | 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | VOC | 0.11 | 0.54 | | | |
| 1129 | Catalyst Expansion Area Fugitives (5) (9) | VOC | 1.20 | 5.28 | 4, 20 | 4, 20, 25 | 4 |
| 705 | Small Flare (10) | VOC | 17.52 | 8.95 | 6, 8, 13, 14, 15, 18, 27 | 6, 13, 14, 15, 26, 27 | 6 |
| | | NOx | 8.17 | 3.21 | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|----------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | CO (PSD) | 12.52 | 4.92 | | | |
| 530 | THF Tank Vent | VOC | 22.06 | 0.53 | | | |
| 535 | Bin 7117 Vent Filter | PM | 0.01 | 0.01 | 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | Chromium Metal | 0.01 | 0.01 | | | |
| | | VOC | 0.50 | 0.61 | | | |
| 535L | Bin 7117 Cylinder Loading Filter | PM | 0.01 | 0.01 | 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | Chromium Metal | 0.01 | 0.01 | | | |
| | | VOC | 0.20 | 0.24 | | | |
| 1044 | South Ethylene Sieve Vent (6) | VOC | 6.00 | - | | | |
| 1045 | West Ethylene | VOC | 6.00 | - | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|--|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | Sieve Vent (6) Total EPNs 1044 and 1045 Cap (7) | VOC | - | 1.62 | | | |
| 1046 | Isopentane Sieves Combined Vent | VOC | 6.0 | 0.94 | | | |
| 1047 | Butene Sieves Combined Vent | VOC | 6.0 | 3.95 | | | |
| 1048 | Hexene Sieves Combined Vent | VOC | 6.0 | 0.75 | | | |
| 1007 | Catalyst Bin 31 Loading | PM | 0.02 | 0.09 | 8 | 8, 22, 23, 26 | 8 |
| | | PM ₁₀ | 0.02 | 0.09 | | | |
| | | PM _{2.5} | 0.02 | 0.09 | | | |
| | | VOC | 0.71 | 3.09 | | | |
| 1009 | Catalyst Cylinder Loading | PM | 0.01 | 0.01 | 8 | 8, 22, 23, 26 | 8 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | VOC | 0.02 | 0.07 | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|--------------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| UCAT-J Facility | | | | | | | |
| 705 | Small Flare (10) | VOC | 2.39 | 0.79 | 6, 13, 14, 15, 18, 27 | 6, 13, 14, 15, 26, 27 | 6 |
| | | NOx | 1.13 | 0.38 | | | |
| | | CO | 1.72 | 0.57 | | | |
| 1150 | Silica Charge Pot Filter | PM | 0.01 | 0.02 | 2, 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.01 | 0.02 | | | |
| | | PM _{2.5} | 0.01 | 0.02 | | | |
| 1151 | Magnesium Chloride Charge Pot Filter | PM | 0.01 | 0.01 | 2, 8 | 8, 22, 26 | 8 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| 1152A | Product Cylinder Vent | VOC | 0.01 | 0.01 | | | |
| 1152B | Product Cylinder Vent | VOC | 0.01 | 0.01 | | | |
| 1154 | Mineral Oil Tank Vent | VOC | 0.01 | 0.01 | | | |

Major NSR Summary Table

| Permit Numbers: 1567 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|------------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 1155 | Fugitives (5) | Inorganic | 0.01 | 0.02 | 4, 20 | 4, 20, 26 | 4 |
| | | VOC | 0.53 | 2.30 | | | |
| 1156A | Fugitives (5) - Silica Truck No. 1 | PM | 0.01 | 0.01 | | | |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| 1156B | Fugitives (5) - Silica Truck No. 2 | PM | 0.01 | 0.01 | | | |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| 1158A | THF Filters | VOC | 0.07 | 0.01 | | | |
| 1158B | THF Filters | VOC | 0.07 | 0.01 | | | |
| 1159A | THF Filters | VOC | 0.07 | 0.01 | | | |
| 1159B | THF Filters | VOC | 0.07 | 0.01 | | | |

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO_x - total oxides of nitrogen

- SO₂ - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented.
- PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented.
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Maximum hourly emission rate from any one emission point listed within a group.
- (7) The combined annual emission from the group of listed emission points is limited to the total annual emission rate cap.
- (8) This EPN is associated with reactor start-up only.
- (9) 0.48 tpy of isopentane is authorized through Permit by Rule Registration Number 44680. This permit by rule has not been voided.
- (10) Compliance with allowable emissions for EPN 705 may be demonstrated by monitoring the combined stream to the flare for UCAT-J Facility and catalyst expansion/isopentane recovery.

Major NSR Summary Table

| Permit Numbers: 3639 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|--|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 246 | Large Flare (7) | VOC | 79.53 | 87.95 | 8 | 5, 8 | |
| | | NO _x | 6.93 | 8.72 | | | |
| | | CO | 35.34 | 44.44 | | | |
| 246 | Large Flare Startup, Shutdown, and Maintenance (7) | VOC | 107.89 | 1.22 | 8 | 8 | |
| | | NO _x | 11.10 | 0.12 | | | |
| | | CO | 56.57 | 0.58 | | | |
| 441 | Mark IV Catalyst Feeder Vent | VOC | 0.02 | 0.03 | 6 | 6 | 6 |
| | | PM | 0.04 | 0.02 | | | |
| | | PM ₁₀ | 0.04 | 0.02 | | | |
| | | PM _{2.5} | 0.04 | 0.02 | | | |
| 347 | Unit Analyzer Vents | VOC | 0.11 | 0.46 | | | |
| 351 | Compressor Seal Oil Degassing Reservoir | VOC | 0.20 | 0.86 | | | |
| 766-5 | Fugitives (5) (6) | VOC | 4.50 | 19.72 | 10 | 10 | |
| 191 to 206 | Unit Make Bins | VOC | 9.90 | 34.35 | 6 | 5, 6 | 6 |

Major NSR Summary Table

| Permit Numbers: 3639 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|----------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM | 0.13 | 0.35 | | | |
| | | PM ₁₀ | 0.13 | 0.35 | | | |
| | | PM _{2.5} | 0.13 | 0.35 | | | |
| 1043 | Sample Purger | VOC | 0.14 | 0.41 | | | |
| 1079 | Catalyst Wash Pot No. 1 | VOC | 5.87 | 0.85 | | 7 | |
| 1080 | Catalyst Wash Pot No. 2 | VOC | 5.87 | 0.85 | | 7 | |
| 1162 | Portable Mineral Oil Pot Vent | VOC | 0.10 | 0.01 | | | |
| 1178 | Seed Bed Vent | PM | 3.33 | 0.26 | | | |
| | | PM ₁₀ | 3.33 | 0.26 | | | |
| | | PM _{2.5} | 3.33 | 0.26 | | | |
| 1223 | Cycle Gas Line Fugitives (5) (6) | VOC | 0.01 | 0.06 | 10 | 10 | |

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

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

- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x - total oxides of nitrogen
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented.
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 - CO - carbon monoxide
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) 1.52 tpy of VOC emissions are authorized via Permit by Rule (PBR) Registration Numbers 32964, 31855, and 42305. These PBRs have not been voided.
- (7) SO₂ emissions from the combustion of supplemental natural gas are authorized under NSR Permit No. 1567.

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|---|--------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 246 | Large Flare | NOx | 24.11 | 3.67 | 3, 5, 9, 10, 19, 21 | 3, 6, 5, 9, 10, 19, 24 | 3, 5, 26 |
| | | CO | 122.85 | 18.70 | | | |
| | | VOC | 215.40 | 37.13 | | | |
| | | Al ₂ O ₃ | 2.28 | 0.10 | | | |
| 246 | Large Flare, Startup, Shutdown, and Maintenance | NOx | 70.84 | 1.30 | 3, 9, 10 | 3, 9, 10, 24 | 3, 26 |
| | | CO | 360.95 | 6.61 | | | |
| | | VOC | 792.88 | 14.59 | | | |
| 479 | No. 2 Silica Activator | PM | 0.01 | 0.01 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| 480 | No. 2 Silica Activator Blow Tank | PM | 0.01 | 0.01 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| 481 | Silica Bin 6 | PM | 0.01 | - | 15 | 16 | 16 |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|-----------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM ₁₀ | 0.01 | - | | | |
| | | PM _{2.5} | 0.01 | - | | | |
| 482 | Silica Bin 7 | PM | 0.01 | - | 15 | 16 | 16 |
| | | PM ₁₀ | 0.01 | - | | | |
| | | PM _{2.5} | 0.01 | - | | | |
| 481, 482 | Annual Emissions Cap | PM | - | 0.01 | 15 | 16 | 16 |
| | | PM ₁₀ | - | 0.01 | | | |
| | | PM _{2.5} | - | 0.01 | | | |
| 483 | G-3 Blender Blow Tank | PM | 0.01 | 0.01 | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | VOC | 0.57 | 0.14 | | | |
| 484 | Catalyst Bin 25 | PM | 0.01 | - | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.01 | - | | | |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|----------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM _{2.5} | 0.01 | - | | | |
| | | VOC | 0.04 | 0.01 | | | |
| 485 | Catalyst Bin 26 | PM | 0.01 | - | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.01 | - | | | |
| | | PM _{2.5} | 0.01 | - | | | |
| | | VOC | 0.04 | 0.01 | | | |
| 486 | Catalyst Bin 27 | PM | 0.01 | - | 15 | 16 | 16 |
| | | PM ₁₀ | 0.01 | - | | | |
| | | PM _{2.5} | 0.01 | - | | | |
| 487 | Catalyst Bin 28 | PM | 0.01 | - | 15 | 16 | 16 |
| | | PM ₁₀ | 0.01 | - | | | |
| | | PM _{2.5} | 0.01 | - | | | |
| 484, 485, 486, 487 | Annual Emissions Cap | PM | - | 0.01 | 15 | 16 | 16 |
| | | PM ₁₀ | - | 0.01 | | | |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|---------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM _{2.5} | - | 0.01 | | | |
| 488 | Middle Catalyst Blow Tank | PM | 0.02 | - | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.02 | - | | | |
| | | PM _{2.5} | 0.02 | - | | | |
| | | VOC | 0.59 | 0.15 | | | |
| 489 | North Catalyst Blow Tank | PM | 0.02 | - | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.02 | - | | | |
| | | PM _{2.5} | 0.02 | - | | | |
| | | VOC | 2.78 | 0.52 | | | |
| 490 | South Catalyst Blow Tank | PM | 0.02 | - | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.02 | - | | | |
| | | PM _{2.5} | 0.02 | - | | | |
| | | VOC | 0.59 | 0.15 | | | |
| 771 | Catalyst Blow Tank | PM | 0.02 | - | 15, 21 | 16 | 16 |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|---------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM ₁₀ | 0.02 | - | | | |
| | | PM _{2.5} | 0.02 | - | | | |
| | | VOC | 0.59 | 0.15 | | | |
| 488, 489, 490, 771 | Annual Emissions Cap | PM | - | 0.02 | 15 | 16 | 16 |
| | | PM ₁₀ | - | 0.02 | | | |
| | | PM _{2.5} | - | 0.02 | | | |
| 491 | G-1 North Catalyst Feeder | PM | 0.01 | 0.01 | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | VOC | 1.02 | 1.93 | | | |
| 492 | G-1 South Catalyst Feeder | PM | 0.01 | 0.01 | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | VOC | 1.02 | 1.93 | | | |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--|---------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 493 | G-2 North Catalyst Feeder | PM | 0.01 | 0.01 | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | VOC | 0.82 | 1.78 | | | |
| 494 | G-2 South Catalyst Feeder | PM | 0.01 | 0.01 | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | VOC | 0.82 | 1.78 | | | |
| 495 | G-1 Seal Vent System | VOC | 0.20 | 0.88 | | | |
| 496 | G-2 Seal System Vent | VOC | 0.20 | 0.88 | | | |
| 497 | G-1 Seed Bed Vent | PM | 4.38 | 0.25 | 15 | 7 | |
| | | PM ₁₀ | 4.38 | 0.25 | | | |
| | | PM _{2.5} | 4.38 | 0.25 | | | |
| Combined Allowables - Entry No. 1 | | | | | | | |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--|--|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 504, 505, 506, 591, 594, and 1052 | Resin Bin 101, Resin Bin 102, Resin Bin 103, P-1 Feed Hopper, Pellet Dryer Vent, and No. 1 Make Baghouse | VOC | 14.48 | 15.72 | 21, 22 | 24 | 26 |
| Combined Allowables - Entry No. 2 | | | | | | | |
| 507, 508, 509, 1053, 1053A | Resin Bin 201, Resin Bin 202, Resin Bin 203, No. 2 Make Baghouse, and G-2 Conveying System | VOC | 12.14 | 10.16 | 21, 22 | 24 | 26 |
| 502 | No. 1 Trim Vent | PM | 0.10 | 0.01 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.10 | 0.01 | | | |
| | | PM _{2.5} | 0.10 | 0.01 | | | |
| 503 | No. 2 Trim Vent | PM | 0.10 | 0.04 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.10 | 0.04 | | | |
| | | PM _{2.5} | 0.10 | 0.04 | | | |
| 504, 505, 506 | Resin Bin No. 101, | PM | 0.13 | 0.50 | 15 | 16 | 16 |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|-----------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | 102, and 103 | PM ₁₀ | 0.13 | 0.50 | | | |
| | | PM _{2.5} | 0.13 | 0.50 | | | |
| | | VOC (6) | - | - | | | |
| 507, 508, 509 | Resin Bin No. 201, 202, and 203 | PM | 0.10 | 0.41 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.10 | 0.41 | | | |
| | | PM _{2.5} | 0.10 | 0.41 | | | |
| | | VOC (7) | - | - | | | |
| 510 | No. 1 Transfer Conveyor Separator | PM | 0.20 | - | 15 | 16 | 16 |
| | | PM ₁₀ | 0.20 | - | | | |
| | | PM _{2.5} | 0.20 | - | | | |
| 511 | No. 2 Transfer Conveyor Separator | PM | 0.20 | - | 15 | 16 | 16 |
| | | PM ₁₀ | 0.20 | - | | | |
| | | PM _{2.5} | 0.20 | - | | | |
| 768 | Dedicated Transfer | PM | 0.20 | - | 15 | 16 | 16 |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|----------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | System | PM ₁₀ | 0.20 | - | | | |
| | | PM _{2.5} | 0.20 | - | | | |
| 510, 511, and 768 | Annual Emissions Cap | PM | - | 1.04 | 15 | 16 | 16 |
| | | PM ₁₀ | - | 1.04 | | | |
| | | PM _{2.5} | - | 1.04 | | | |
| 512 | No. 1 Loading Conveyor Separator | PM | 0.20 | - | 15 | 16 | 16 |
| | | PM ₁₀ | 0.20 | - | | | |
| | | PM _{2.5} | 0.20 | - | | | |
| 513 | No. 2 Loading Conveyor Separator | PM | 0.15 | - | 15 | 16 | 16 |
| | | PM ₁₀ | 0.15 | - | | | |
| | | PM _{2.5} | 0.15 | - | | | |
| 512 and 513 | Annual Emissions Cap | PM | - | 0.53 | 15 | 16 | 16 |
| | | PM ₁₀ | - | 0.53 | | | |
| | | PM _{2.5} | - | 0.53 | | | |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|----------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 514 | Loading Additive Transfer System | PM | 0.14 | 0.02 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.14 | 0.02 | | | |
| | | PM _{2.5} | 0.14 | 0.02 | | | |
| 516 | No. 2 Loading Additive Hopper | PM | 0.01 | 0.04 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.04 | | | |
| | | PM _{2.5} | 0.01 | 0.04 | | | |
| 521 | G-2 Seed Bed Vent | PM | 4.38 | 0.25 | 15 | 7 | |
| | | PM ₁₀ | 4.38 | 0.25 | | | |
| | | PM _{2.5} | 4.38 | 0.25 | | | |
| 522 | Unit Fugitives Block 26 (5) | VOC | 7.17 | 30.01 | 3, 12, 21, 22 | 3, 12, 24 | 3 |
| 523 | Analyzer Vents | VOC | 0.20 | 0.88 | | | |
| 524 | Pelleted Master Batch Baghouse | PM | 0.02 | 0.01 | 13, 14, 15 | 14, 16 | 14, 16 |
| | | PM ₁₀ | 0.02 | 0.01 | | | |
| | | PM _{2.5} | 0.02 | 0.01 | | | |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|--------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 590 | P-1 Trim Bin Filter | PM | 0.08 | 0.05 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.08 | 0.05 | | | |
| | | PM _{2.5} | 0.08 | 0.05 | | | |
| 591 | P-1 Feed Hopper Filter | PM | 0.01 | 0.05 | 15, 21, 22 | 16, 24 | 16 |
| | | PM ₁₀ | 0.01 | 0.05 | | | |
| | | PM _{2.5} | 0.01 | 0.05 | | | |
| | | VOC (6) | - | - | | | |
| 592 | P-1 Additive (Granular) Filter | PM | 0.01 | 0.01 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| 592FF | P-1 Feeder Filter B | PM | 0.13 | 0.05 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.13 | 0.05 | | | |
| | | PM _{2.5} | 0.13 | 0.05 | | | |
| 593 | P-1 Additive (Pelleted) | PM | 0.01 | 0.01 | 15 | 16 | 16 |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|--------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | Filter | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| 593FF | P-1 Feeder Filter A | PM | 0.13 | 0.05 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.13 | 0.05 | | | |
| | | PM _{2.5} | 0.13 | 0.05 | | | |
| 594 | P-1 Pellet Dryer Exhaust | PM | 0.65 | 1.91 | 15, 21, 22 | 16, 24 | 16 |
| | | PM ₁₀ | 0.65 | 1.91 | | | |
| | | PM _{2.5} | 0.65 | 1.91 | | | |
| | | VOC (6) | - | - | | | |
| 595 | P-1 Elutriator Filter | PM | 0.07 | 0.19 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.07 | 0.19 | | | |
| | | PM _{2.5} | 0.07 | 0.19 | | | |
| 705 | Small Flare | NO _x | 31.39 | 47.95 | 3, 5, 9, 10, 11, 21 | 3, 5, 6, 9, 10, 11, 24 | 3, 5, 26 |
| | | CO | 97.15 | 148.42 | | | |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | VOC | 44.79 | 37.19 | | | |
| | | SO2 | 5.92 | 1.15 | | | |
| | | AL2O3 | 2.28 | 2.08 | | | |
| 761 | Catalyst Bin 29 | PM | 0.02 | 0.01 | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.02 | 0.01 | | | |
| | | PM _{2.5} | 0.02 | 0.01 | | | |
| | | VOC | 2.19 | 0.38 | | | |
| 762 | Catalyst Bin 30 | PM | 0.02 | 0.01 | 15, 21 | 16 | 16 |
| | | PM ₁₀ | 0.02 | 0.01 | | | |
| | | PM _{2.5} | 0.02 | 0.01 | | | |
| | | VOC | 2.19 | 0.38 | | | |
| 765 | Microtalc Filter | PM | 0.12 | 0.02 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.12 | 0.02 | | | |
| | | PM _{2.5} | 0.12 | 0.02 | | | |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 765DFUG | Talc Unloading (5) | PM | 1.67 | 0.05 | 15 | | |
| | | PM ₁₀ | 1.67 | 0.05 | | | |
| | | PM _{2.5} | 1.67 | 0.05 | | | |
| 766 | Fugitives, Block 12 (5) | VOC | 0.11 | 0.49 | 12, 21, 22 | 12, 24 | |
| 769 | Fugitives, Block 17 (5) | VOC | 0.19 | 0.85 | 12, 21, 22 | 12, 24 | |
| 1040 | Additive Feeder | PM | 0.01 | 0.02 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.02 | | | |
| | | PM _{2.5} | 0.01 | 0.02 | | | |
| 1052 | No. 1 Granular Make Baghouse | PM | 0.13 | 0.05 | 13, 14, 15, 21, 22 | 14, 16, 24 | 14, 16 |
| | | PM ₁₀ | 0.13 | 0.05 | | | |
| | | PM _{2.5} | 0.13 | 0.05 | | | |
| | | VOC (6) | - | - | | | |
| 1053 | No. 2 Granular Make Baghouse | PM | 0.10 | 0.39 | 13, 14, 15, 21, 22 | 14, 16, 24 | 14, 16 |
| | | PM ₁₀ | 0.10 | 0.39 | | | |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | | Issuance Date: October 5, 2023 | | |
|--------------------------------------|------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM _{2.5} | 0.10 | 0.39 | | | |
| | | VOC (7) | - | - | | | |
| 1053A | G-2 Conveying System | PM | 0.14 | 0.60 | 13, 14, 15, 21, 22 | 14, 16, 24 | 14, 16 |
| | | PM ₁₀ | 0.14 | 0.60 | | | |
| | | PM _{2.5} | 0.14 | 0.60 | | | |
| | | VOC (7) | - | - | | | |
| 1054 | P-1 Additive Conveyor | PM | 0.01 | 0.01 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| 1075D | Talc Feeder Vent Line | PM | 0.04 | 0.17 | 15 | 16 | 16 |
| | | PM ₁₀ | 0.04 | 0.17 | | | |
| | | PM _{2.5} | 0.04 | 0.17 | | | |
| 1086 | Wash Pot | VOC | 5.87 | 0.85 | 21 | 8 | |
| 1090 | G-1 Purge Bin Analyzer | VOC | 0.01 | 0.01 | 21 | | |

Major NSR Summary Table

| Permit Numbers: 6141A and PSDTX118M4 | | | | Issuance Date: October 5, 2023 | | | |
|--------------------------------------|---------------------------------------|--------------------------|----------------|--------------------------------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 1148 | Ethylene Heating System Fugitives (5) | VOC | 0.99 | 4.32 | 12, 21, 22 | 12, 24 | |

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC
 - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - Al₂O₃ - aluminum oxide
 - CO - carbon monoxide
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) See Combined Allowables- Entry No. 1.
- (7) See Combined Allowables- Entry No. 2.

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|---|-------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 436 | Liquid Catalyst Storage Tank, Routine Operations | VOC (6) | 106.96 | 3.42 | | 5, 13 | |
| 436 | Liquid Catalyst Storage Tank, Maintenance, Startup, and Shutdown Activities | VOC (6) | 1.32 | 0.01 | | 10 | |
| 436F | Fugitives from Liquid Catalyst Tank (5) | VOC (6) | 0.49 | 2.14 | 11 | 11 | |
| 467 | Catalyst Bin 21 | PM Catalyst Dust (7) | 0.12 | 0.01 | 2 | 13 | |
| | | PM ₁₀ Catalyst Dust (7) | 0.12 | 0.01 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.12 | 0.01 | | | |
| 468 | Catalyst Bin 22 | PM Catalyst Dust (7) | 0.12 | 0.01 | 2 | 13 | |
| | | PM ₁₀ Catalyst Dust (7) | 0.12 | 0.01 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.12 | 0.01 | | | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|-------------------------|-------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | (7) | | | | | |
| | | VOC | 0.04 | 0.14 | | | |
| 469 | Catalyst Bin 23 | PM Catalyst Dust (7) | 0.24 | 0.02 | 2 | 13 | |
| | | PM ₁₀ Catalyst Dust (7) | 0.24 | 0.02 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.24 | 0.02 | | | |
| | | VOC | 0.04 | 0.14 | | | |
| 470 | Catalyst Bin 24 | PM Catalyst Dust (7) | 0.24 | 0.02 | 2 | 13 | |
| | | PM ₁₀ Catalyst Dust (7) | 0.24 | 0.02 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.24 | 0.02 | | | |
| | | VOC | 0.04 | 0.14 | | | |
| 1008 | Catalyst Bin 32 Loading | PM Catalyst Dust (7) | 0.34 | 0.05 | 2 | 13 | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|---------------------------|-------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM ₁₀ Catalyst Dust (7) | 0.34 | 0.05 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.34 | 0.05 | | | |
| 1010 | Catalyst Cylinder Loading | PM Catalyst Dust (7) | 0.14 | 0.03 | 2 | 13 | |
| | | PM ₁₀ Catalyst Dust (7) | 0.14 | 0.03 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.14 | 0.03 | | | |
| 1100 | Catalyst Unit Flare | VOC, other | 45.33 | 9.50 | 7 | 7, 13 | |
| | | Toluene | 0.01 | 0.01 | | | |
| | | Chlorobenzene | 3.17 | 0.60 | | | |
| | | Aliphatic Alcohol or Glycol Ethers | 0.01 | 0.01 | | | |
| | | n-Hexanol | 0.09 | 0.01 | | | |
| | | o-Cresol | 0.01 | 0.01 | | | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|-------------------------|------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | NO _x | 18.16 | 9.96 | | | |
| | | CO | 155.72 | 85.40 | | | |
| | | HCl | 51.48 | 9.70 | | | |
| | | SO ₂ | 0.63 | 0.45 | | | |
| 1140 | Fugitives (5) (8) | VOC, other | 1.67 | 7.23 | 11 | 11, 13 | |
| | | Toluene | 0.01 | 0.01 | | | |
| | | Chlorobenzene | 0.86 | 3.72 | | | |
| | | Titanium Tetrachloride | 0.10 | 0.42 | | | |
| | | Aliphatic Alcohol or Glycol Ethers | 0.18 | 0.77 | | | |
| | | o-Cresol | 0.11 | 0.45 | | | |
| | | HCl | 0.01 | 0.04 | | | |
| | | Ethylene Glycol | 0.03 | 0.12 | | | |
| 1143 | Cylinder Loading Filter | PM | 0.01 | 0.01 | 2 | 13 | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|-----------------------------|------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |
| | | Isopentane | 0.08 | 0.02 | | | |
| | | Chlorobenzene | 0.02 | 0.01 | | | |
| 1144 | Truck Loading Fugitives (5) | VOC, other | 1.93 | 0.05 | 11 | 11, 13 | |
| | | Toluene | 0.01 | 0.01 | | | |
| | | Chlorobenzene | 0.04 | 0.01 | | | |
| | | Titanium Tetrachloride | 0.01 | 0.01 | | | |
| | | Aliphatic Alcohol or Glycol Ethers | 0.01 | 0.01 | | | |
| | | o-Cresol | 0.01 | 0.01 | | | |
| 1145 | Additive Dump Hopper Filter | PM | 0.01 | 0.01 | 2 | 13 | |
| | | PM ₁₀ | 0.01 | 0.01 | | | |
| | | PM _{2.5} | 0.01 | 0.01 | | | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|--------------------------|-------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 1146 | Additive Receiver Filter | PM | 0.01 | 0.05 | 2 | 13 | |
| | | PM ₁₀ | 0.01 | 0.05 | | | |
| | | PM _{2.5} | 0.01 | 0.05 | | | |
| 226 | Silica Preheater | PM Catalyst Dust (7) | 0.10 | 0.02 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.10 | 0.02 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.10 | 0.02 | | | |
| 227 | No. 1 Activator | PM Catalyst Dust (7) | 0.01 | 0.01 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.01 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.01 | | | |
| | | VOC | 7.23 | 0.99 | | | |
| | | NH ₃ | 0.30 | 0.04 | | | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|---------------------------|-------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 228 | No. 1 Activator Blow Tank | PM Catalyst Dust (7) | 0.04 | 0.01 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.04 | 0.01 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.04 | 0.01 | | | |
| 229 | Filter Bins 1 through 5 | PM Catalyst Dust (7) | 0.14 | 0.06 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.14 | 0.06 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.14 | 0.06 | | | |
| 230 | G-5 Blender Blow Tank | PM Catalyst Dust (7) | 0.12 | 0.02 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.12 | 0.02 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.12 | 0.02 | | | |
| | | VOC | 0.02 | 0.07 | | | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|------------------------------------|-------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 231 | Filter Bins 11 through 15 | PM Catalyst Dust (7) | 0.09 | 0.01 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.09 | 0.01 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.09 | 0.01 | | | |
| 232 | Filter Bins 16 through 20 | PM Catalyst Dust (7) | 0.13 | 0.02 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.13 | 0.02 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.13 | 0.02 | | | |
| | | VOC | 0.10 | 0.02 | | | |
| 766-3A | G-Mix Fugitives (5) | VOC | 1.00 | 0.57 | 12 | 12 | |
| 703 | Catalyst Preparation Fugitives (5) | VOC | 0.09 | 0.42 | 11 | 11 | |
| 772 | No. 3 Activator | PM Catalyst Dust (7) | 0.03 | 0.01 | 2 | | |
| | | PM ₁₀ Catalyst Dust | 0.03 | 0.01 | | | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|---------------------------|-------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | (7) | | | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.03 | 0.01 | | | |
| | | VOC | 15.80 | 2.38 | | | |
| 773 | No. 3 Activator Blow Tank | PM Catalyst Dust (7) | 0.02 | 0.01 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.02 | 0.01 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.02 | 0.01 | | | |
| 246 | Large Poly Flare (9) | VOC | 40.51 | 33.48 | 7 | 7 | |
| | | NO _x | 2.74 | 2.20 | | | |
| | | CO | 13.97 | 11.22 | | | |
| | | NH ₃ | 0.02 | 0.01 | | | |
| | | Titanium Tetrachloride | 0.01 | 0.01 | | | |
| 1161 | Silica Dehydrator | PM | 0.01 | 0.02 | 2 | | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|------------------------------|-------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM ₁₀ | 0.01 | 0.02 | | | |
| | | PM _{2.5} | 0.01 | 0.02 | | | |
| | | VOC | 0.33 | 0.10 | | | |
| 1130 | ME Drum Liner Washing | VOC | 2.67 | 1.98 | | 10 | |
| 1055 | Silica 958 Bin Filter | SiO ₂ Dust (7) | 0.01 | 0.01 | 2 | | |
| 533 | Catalyst Loading Filter | SiO ₂ Dust | 0.01 | 0.01 | 2 | | |
| 532 | Precursor Fugitives Existing | VOC | 0.44 | 1.95 | 11 | 11 | |
| 534H | Bin 53056 Filter | PM Catalyst Dust (7) | 0.01 | 0.05 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.05 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.05 | | | |
| 536H | Precursor Unit Blowtank | PM Catalyst Dust (7) | 0.01 | 0.05 | 2 | | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | | Issuance Date: May 3, 2024 | | |
|-------------------------------------|------------------------------|-------------------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.05 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.05 | | | |
| | | VOC | 0.01 | 0.01 | | | |
| 537H | Bin C5392 | PM Catalyst Dust (7) | 0.01 | 0.05 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.05 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.05 | | | |
| | | Chromium | 0.01 | 0.01 | | | |
| 538H | Bin 5388 | PM Catalyst Dust (7) | 0.01 | 0.05 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.05 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.05 | | | |
| 1243 | MgCl ₂ Charge Pot | MgCl ₂ | 0.26 | 0.05 | | | |

Major NSR Summary Table

| Permit Numbers: 6361 and PSDTX118M4 | | | | Issuance Date: May 3, 2024 | | | |
|-------------------------------------|------------------------------|-------------------------------------|----------------|----------------------------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 1244 | TiCl ₃ Charge Pot | TiCl ₃ | 0.19 | 0.03 | | | |
| 1055H | Bin C5350 | PM Catalyst Dust (7) | 0.01 | 0.01 | 2 | | |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.01 | | | |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.01 | | | |

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
 - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10
 - IOC-U - inorganic compounds (unspeciated)
 - NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 - CO - carbon monoxide
 - 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
 - HCl - hydrogen chloride
 - NH₃ - ammonia
 - SiO₂ - silicon dioxide
 - TiCl₃ - titanium(III) chloride
 - MgCl₂ - magnesium chloride

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) The VOC as Isopentane.
- (7) Catalyst dust is particulate matter which contains as much as 100 weight percent amorphous silica and not more than 1.00 weight percent hexavalent chromium.
- (8) The 0.24 ton per year (TPY) VOC, 0.46 TPY chlorobenzene, and 0.07 TPY of Cresol are authorized through Permits by Rule (PBR) Registration Numbers 42461, 51164, and 49720. These PBRs have not been voided.
- (9) SO₂ emissions from the combustion of supplemental natural gas are authorized under NSR Permit No. 1567.

Major NSR Summary Table

| Permit Numbers: 18773 and PSDTX118M4 | | | | | Issuance Date: October 17, 2025 | | |
|--------------------------------------|---|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 700 | Rxn and Ethylene Purification Fugitives (5) | VOC | 7.48 | 24.59 | 3, 8, 10 | 3, 8, 10, 18 | 3, 10 |
| 704 | Analyzer Vent | VOC | 0.22 | 0.96 | | 18 | |
| 705 | Small Flare (7) | CO | 39.41 | 48.49 | 3, 11, 13 | 3, 13, 18 | 3 |
| | | NO _x | 12.73 | 15.67 | | | |
| | | VOC | 38.62 | 47.25 | | | |
| 707 | Cycle Gas Compressor Seal and Lube Oil Vent | VOC | 0.11 | 0.48 | | 18 | |
| 708 | Catalyst Transfer Tank Vent Filter | PM | <0.01 | <0.01 | 4, 6, 7, 8 | 4, 6, 7, 18 | 7 |
| | | PM ₁₀ | <0.01 | <0.01 | | | |
| | | PM _{2.5} | <0.01 | <0.01 | | | |
| 709 | Catalyst Transfer Tank Vent Filter | PM | <0.01 | <0.01 | 4, 6, 7, 8 | 4, 6, 7, 18 | 7 |
| | | PM ₁₀ | <0.01 | <0.01 | | | |
| | | PM _{2.5} | <0.01 | <0.01 | | | |

Major NSR Summary Table

| Permit Numbers: 18773 and PSDTX118M4 | | | | | Issuance Date: October 17, 2025 | | |
|--------------------------------------|------------------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 711 | Catalyst Transfer Tank Vent Filter | PM | <0.01 | <0.01 | 4, 6, 7, 8 | 4, 6, 7, 18 | 7 |
| | | PM ₁₀ | <0.01 | <0.01 | | | |
| | | PM _{2.5} | <0.01 | <0.01 | | | |
| 710 | G-3 Reactor Sed Bed Vent | Polyethylene Dust | 8.13 | 0.20 | 4 | 4, 18 | |
| | | PM ₁₀ | <0.01 | <0.01 | | | |
| | | PM _{2.5} | <0.01 | <0.01 | | | |
| 712 | Catalyst Vent Filter | PM | 0.04 | 0.01 | 4, 6, 7, 8 | 4, 6, 7, 18 | 7 |
| | | PM ₁₀ | 0.04 | 0.01 | | | |
| | | PM _{2.5} | 0.04 | 0.01 | | | |
| 715 | Pneumatic Conveyor Vent Filter | PM | 0.01 | <0.01 | 4, 6, 7, 8 | 4, 6, 7, 18 | 7 |
| | | PM ₁₀ | 0.01 | <0.01 | | | |
| | | PM _{2.5} | 0.01 | <0.01 | | | |
| 716 - 717 | Additive Bin Vent Filters | PM | 0.02 | 0.01 | 4, 6, 7, 8 | 4, 6, 7, 18 | 7 |
| | | PM ₁₀ | 0.02 | 0.01 | | | |

Major NSR Summary Table

| Permit Numbers: 18773 and PSDTX118M4 | | | | | Issuance Date: October 17, 2025 | | |
|--------------------------------------|--|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM _{2.5} | 0.02 | 0.01 | | | |
| 716FF | P3 Pelleter Preblender Receiver | Additive Dust | 0.13 | 0.10 | 4 | 4, 18 | |
| | | PM ₁₀ | 0.13 | 0.10 | | | |
| | | PM _{2.5} | 0.13 | 0.10 | | | |
| 717FF | P3 Pelleter Antiox Receiver | Additive Dust | 0.13 | 0.10 | 4 | 4, 18 | |
| | | PM ₁₀ | 0.13 | 0.10 | | | |
| | | PM _{2.5} | 0.13 | 0.10 | | | |
| 718 | Trim Receiver Vent Filter | PM | 0.03 | 0.03 | 4, 6, 7, 8 | 4, 6, 7, 18 | 7 |
| | | PM ₁₀ | 0.03 | 0.03 | | | |
| | | PM _{2.5} | 0.03 | 0.03 | | | |
| 720 | Storage and Blend Bin Vent Filters and Pelleting System Dust Collector | PM | <0.01 | <0.01 | 4, 6, 7, 8 | 4, 6, 7, 18 | 7 |
| | | PM ₁₀ | <0.01 | <0.01 | | | |
| | | PM _{2.5} | <0.01 | <0.01 | | | |
| 721 | Pelleter Dryer Exhaust | PM | 0.95 | 3.58 | 4 | 18 | |

Major NSR Summary Table

| Permit Numbers: 18773 and PSDTX118M4 | | | | | Issuance Date: October 17, 2025 | | |
|--------------------------------------|--|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | | PM ₁₀ | <0.01 | <0.01 | | | |
| | | PM _{2.5} | <0.01 | <0.01 | | | |
| 720, 722 – 724 | Storage and Blend Bin Vent Filters and Pelleting System Dust Collector | PM | 0.10 | 0.36 | 4, 6, 7, 8 | 4, 6, 7, 18 | 7 |
| | | PM ₁₀ | 0.10 | 0.36 | | | |
| | | PM _{2.5} | 0.10 | 0.36 | | | |
| | | VOC | 3.12 | 10.06 | | | |
| 725 | Pellet Loading Vent Filter | PM | 0.10 | 0.36 | 4, 6, 7, 8 | 4, 6, 7, 18 | 7 |
| | | PM ₁₀ | 0.10 | 0.36 | | | |
| | | PM _{2.5} | 0.10 | 0.36 | | | |
| 246 | Large Flare (7) | CO | 17.41 | 1.39 | 3, 13 | 3, 13, 18 | 3 |
| | | NO _x | 3.42 | 0.27 | | | |
| | | VOC | 33.08 | 2.78 | | | |
| | | Ethylene | 17.19 | 1.24 | | | |
| 246 | Large Flare Start-Up, | CO | 280.63 | 3.65 | 3 | 3, 18 | 3 |

Major NSR Summary Table

| Permit Numbers: 18773 and PSDTX118M4 | | | | | Issuance Date: October 17, 2025 | | |
|--------------------------------------|---------------------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| | Shutdown, and Maintenance | NO _x | 55.07 | 0.72 | | | |
| | | VOC | 610.00 | 7.93 | | | |
| 1239 | Additive Hopper | PM | 0.04 | 0.06 | 4 | 4, 18 | |
| | | PM ₁₀ | 0.04 | 0.06 | | | |
| | | PM _{2.5} | 0.04 | 0.06 | | | |
| 1240 | Additive Hopper | PM | 0.04 | 0.06 | 4 | 4, 18 | |
| | | PM ₁₀ | 0.04 | 0.06 | | | |
| | | PM _{2.5} | 0.04 | 0.06 | | | |
| 1241 | Additive Hopper | PM | 0.04 | 0.06 | 4 | 4, 18 | |
| | | PM ₁₀ | 0.04 | 0.06 | | | |
| | | PM _{2.5} | 0.04 | 0.06 | | | |
| 1242 | Additive Hopper | PM | 0.04 | 0.06 | 4 | 4, 18 | |
| | | PM ₁₀ | 0.04 | 0.06 | | | |
| | | PM _{2.5} | 0.04 | 0.06 | | | |

Major NSR Summary Table

| Permit Numbers: 18773 and PSDTX118M4 | | | | | Issuance Date: October 17, 2025 | | |
|--------------------------------------|-----------------|--------------------------|----------------|---------|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | | Monitoring and Testing Requirements | Recordkeeping Requirements | Reporting Requirements |
| | | | lb/hr | TPY (4) | Special Condition/Application Information | Special Condition/Application Information | Special Condition/Application Information |
| 578A | Fugitives (5) | VOC (6) | 0.05 | 0.22 | 10, 17 | 10, 18 | 10 |
| T101 | Hot Oil System | VOC | <0.01 | <0.01 | | | |

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC
 - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - CO
 - carbon monoxide
 - NO_x
 - total oxides of nitrogen
 - PM
 - particulate matter, suspended in the atmosphere, including PM₁₀
 - PM₁₀
 - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 - PM_{2.5}
 - particulate matter equal to or less than 2.5 microns in diameter
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (6) Propane and propylene emissions from pressure relief valves PSV-2008-62, PSV-2208-63, and associated piping.
- (7) SO₂ emissions from the combustion of supplemental natural gas are authorized under NSR 1567 for Large Flare (EPN 246) and authorized under NSR 6141A for Small Flare (EPN 705).



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Union Carbide Corporation
Authorizing the Continued Operation of
UCC Seadrift Operations
Located at Seadrift, Calhoun County, Texas
Latitude 28.510833 Longitude -96.771666

Permit: 1567 and PSDTX118M4

Issuance Date: May 3, 2024

Expiration Date: May 3, 2034



For the Commission

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

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

1. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources-- Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]¹
2. **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)]
3. **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)]
4. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
5. **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)]
6. **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.
7. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

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

Common Acronyms in Air Permits

°C = Temperature in degrees Celsius
 °F = Temperature in degrees Fahrenheit
 °K = Temperature in degrees Kelvin
 µg = microgram
 µg/m³ = microgram per cubic meter
 acfm = actual cubic feet per minute
 AMOC = alternate means of control
 AOS = alternative operating scenario
 AP-42 = Air Pollutant Emission Factors, 5th edition
 APD = Air Permits Division
 API = American Petroleum Institute
 APWL = air pollutant watch list
 BPA = Beaumont/ Port Arthur
 BACT = best available control technology
 BAE = baseline actual emissions
 bbl = barrel
 bbl/day = barrel per day
 bhp = brake horsepower
 BMP = best management practices
 Btu = British thermal unit
 Btu/scf = British thermal unit per standard cubic foot or feet
 CAA = Clean Air Act
 CAM = compliance-assurance monitoring
 CEMS = continuous emissions monitoring systems
 cfm = cubic feet (per) minute
 CFR = Code of Federal Regulations
 CN = customer ID number
 CNG = compressed natural gas
 CO = carbon monoxide
 COMS = continuous opacity monitoring system
 CPMS = continuous parametric monitoring system
 DFW = Dallas/ Fort Worth (Metroplex)
 DE = destruction efficiency
 DRE = destruction and removal efficiency
 dscf = dry standard cubic foot or feet
 dscfm = dry standard cubic foot or feet per minute
 ED = (TCEQ) Executive Director
 EF = emissions factor
 EFR = external floating roof tank
 EGU = electric generating unit
 EI = Emissions Inventory
 ELP = El Paso
 EPA = (United States) Environmental Protection Agency
 EPN = emission point number
 ESL = effects screening level
 ESP = electrostatic precipitator
 FCAA = Federal Clean Air Act
 FCCU = fluid catalytic cracking unit
 FID = flame ionization detector
 FIN = facility identification number
 ft = foot or feet
 ft/sec = foot or feet per second
 g = gram
 gal/wk = gallon per week
 gal/yr = gallon per year
 GLC = ground level concentration
 GLC_{max} = maximum (predicted) ground-level concentration
 gpm = gallon per minute
 gr/100scf = grain per 100 standard cubic feet
 gr/dscf = grain per dry standard cubic feet
 H₂CO = formaldehyde
 H₂S = hydrogen sulfide
 H₂SO₄ = sulfuric acid
 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
 HC = hydrocarbons
 HCl = hydrochloric acid, hydrogen chloride
 Hg = mercury
 HGB = Houston/Galveston/Brazoria
 hp = horsepower
 hr = hour
 IFR = internal floating roof tank
 in H₂O = inches of water
 in Hg = inches of mercury
 IR = infrared
 ISC3 = Industrial Source Complex, a dispersion model
 ISCST3 = Industrial Source Complex Short-Term, a dispersion model
 K = Kelvin; extension of the degree Celsius scaled-down to absolute zero
 LACT = lease automatic custody transfer
 LAER = lowest achievable emission rate
 lb = pound
 lb/day = pound per day
 lb/hr = pound per hour
 lb/MMBtu = pound per million British thermal units
 LDAR = Leak Detection and Repair (Requirements)
 LNG = liquefied natural gas
 LPG = liquefied petroleum gas
 LT/D = long ton per day
 m = meter
 m³ = cubic meter
 m/sec = meters per second
 MACT = maximum achievable control technology
 MAERT = Maximum Allowable Emission Rate Table
 MERA = Modeling and Effects Review Applicability
 mg = milligram
 mg/g = milligram per gram
 mL = milliliter
 MMBtu = million British thermal units
 MMBtu/hr = million British thermal units per hour
 MSDS = material safety data sheet
 MSS = maintenance, startup, and shutdown
 MW = megawatt
 NAAQS = National Ambient Air Quality Standards
 NESHAP = National Emission Standards for Hazardous Air Pollutants
 NGL = natural gas liquids
 NNSR = nonattainment new source review
 NO_x = total oxides of nitrogen
 NSPS = New Source Performance Standards
 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 PM₁₀ and PM_{2.5}, as represented
PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
PM₁₀ = total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, 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
SO₂ = 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 1567 and PSDTX118M4

Emission Standards

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this permit.
2. There shall be no visible emissions during normal operation from the baghouses associated with this permit.
3. This permit authorizes emissions from the Flare (Emission Point No. [EPN] 246 for maintenance, startup, and shutdown of the G-5 reactor for instances including (but not limited to) inventory control, product transitions, periodic maintenance activities, and periodic shutdowns. These emissions are subject to the maximum allowable emission rates indicated on the maximum allowable emission rates table (MAERT). Any maintenance, startup, and shutdown activities not in the above list are not authorized by this permit.

Federal Applicability

4. 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 DDD, Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry
5. These facilities shall comply with all applicable requirements of the U.S. 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.
6. These facilities shall comply with all applicable requirements of the U.S. 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, Miscellaneous Organic Chemical Manufacturing.
 - C. Subpart GGGGG, National Emission Standards for Hazardous Air Pollutants: Site Remediation.

Production Rates and Throughput Requirements

7. The facilities covered by this permit are limited to the production rates and throughput limits summarized in a "business confidential" letter to the TCEQ dated July 6, 2000. Copies of this letter

Special Conditions

Permit Numbers 1567 and PSDTX118M4

Page 2

are available at the TCEQ Corpus Christi Regional Office and the TCEQ Austin Office. Raw materials charge for K-100TM catalyst production are limited to the confidential portion of the application submitted May 12, 2010.

Operational Parameters

8. All air pollution abatement and collection equipment for the facility covered by this permit shall be properly maintained and operated during the operation of these facilities. Cleaning and maintenance of the abatement equipment shall be performed, as necessary, so that the equipment efficiency can be adequately maintained. The following steps shall be performed, at a minimum, to ensure the proper operation of the baghouse:
 - A. The exterior of baghouses and all connecting duct work shall be inspected quarterly by facility personnel for physical defects such as holes or cracks that may cause leaks and excess emissions or losses in particulate matter removal efficiency.
 - B. If there are visible emissions from any filtered vent, the operation associated with the affected filtered vent shall be isolated and shut down in a timely and orderly manner, and that operation shall not be resumed until any failed or damaged parts are repaired or replaced. Records of corrective actions shall be kept. If the duration of visible emissions exceeds five aggregate minutes during any two-hour period, the holder of this permit shall notify the appropriate TCEQ Regional Office within 24 hours of occurrence of the event. Information provided regarding the event shall include date and time of occurrence, duration, cause, and corrective action taken.
9. Particulate dust collected from the baghouse shall be disposed of in such a manner to prevent it from becoming airborne.
10. Particulate matter outlet grain loading from baghouse D-6307 shall not exceed 0.01 grain per dscf of air from any vent. There shall be no visible emissions exceeding 30 seconds in any six-minute period as determined using U.S. Environmental Protection Agency (EPA) Test Method 22.
11. The vents from baghouse D-6307 covered by this permit shall not operate unless the control device and associated equipment is maintained in good working order and operating. All vents from baghouse D-6307 will be inspected for visible emissions once per day and a spare-parts filter inventory will be maintained on site. Records shall be maintained of all inspections and maintenance performed.
12. The differential pressure across baghouse D-6307 shall be continuously monitored and be recorded at least once every 12 hours, and at least once within 2 hours of the start of each operation. The pressure drop shall be at least 3 inches water gauge and not exceed 6 inches water gauge. Additionally, a panel alarm will be installed by December 31, 2019, notifying operations if the differential pressure is out of range.

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 of +/- 0.5-inch water gauge pressure or a span of +/- 2.0 percent.

Quality assured (or valid) data must be generated when the LP1 Reaction G5 and Catalyst Plant is operating except during the performance of a daily zero check. Loss of valid data due to periods of monitor breakdown, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in hours) that the

Special Conditions

Permit Numbers 1567 and PSDTX118M4

Page 3

LP1 Reaction G5 and Catalyst Plant operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

13. The flares (EPNs 246 and 705) 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 TCEQ Regional Office to demonstrate compliance with these requirements.

B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be 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 steam assist to the Large Flare (EPN 246) and air assist to the small flare (EPN 705).

D. The holder of this permit shall install a continuous flow monitor and composition analyzer that provide a record of the vent stream flow and composition (total VOC or Btu content) to the flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition (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 $\pm 5.0\%$, temperature monitor shall be $\pm 2.0\%$ 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 using the above readings and the emission factors used in the permit amendment application, PI-1 dated April 10, 2023. (PSD)

Special Conditions

Permit Numbers 1567 and PSDTX118M4

Page 4

14. The Flare system, consisting of the Large and Small Flare (EPNs 246 and 705), shall be designed and operated in accordance with the following requirements, applicable after August 12, 2023:

- A. The flare system shall be designed such that the combined flare vent gas, assist air, and/or total steam to each flare meets the 40 CFR § 63.670 specifications for minimum combustion zone net heating value and maximum tip velocity at all times that flare vent gas may be directed to the flare for more than 15 minutes. Flared gas actual exit velocity, vent gas net heating value, and flared gas combustion zone net heating value shall be determined in accordance with 40 CFR §63.670(k), §63.670(l), and §63.670(m) on a 15-minute block average and recorded at least once every 15 minutes.

If the flare actively receives perimeter assist air, it shall be operated to meet the 40 CFR §63.670 specifications for minimum net heating value dilution parameters.

- B. The flares shall be operated with a pilot flame present at all times when flare vent gas may be directed to the flares. 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. Flares shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours, demonstrated and recorded per the requirements of §63.670(h). This shall be ensured by the use of steam assist to the Large Flare (EPN 246) and air assist to the Small Flare (EPN 705).
- D. The permit holder shall install flow monitors that continuously measure, calculate, and record the total volumetric vent stream flow rate (including waste gas, purge gas, supplemental gas, and sweep gas), and shall install a monitoring system capable of determining the concentration of individual components in the flare vent gas or the net heating value of the flare vent gas. The flow monitor sensor and analyzer sample points shall be installed in the vent stream such that the total vent stream to the flare is measured and analyzed.

If one or more gas streams that combine to comprise the total flare vent gas flow are monitored separately for net heating value and flow, the 15-minute block average net heating value shall be determined separately for each measurement location and a flow-weighted average of the gas stream net heating values shall be used to determine the 15-minute block average net heating value of the cumulative flare vent gas.

If assist air or assist steam is used, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the total volumetric flow rate of assist air and/or assist steam used with the flare.

If pre-mix assist air and/or perimeter assist air are used, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of separately measuring, calculating, and recording the volumetric flow rate of pre-mix assist air and/or perimeter assist air used with the flare. Continuously monitoring fan speed or power and using fan curves is an acceptable method for continuously monitoring assist air flow rates.

Perimeter assist air includes all air assist except pre-mix assist air. Pre-mix assist air includes any air intentionally entrained in center steam.

Assist air includes pre-mix assist air and perimeter assist air but does not include the surrounding ambient air.

The monitors shall be calibrated or have a calibration check performed as specified in Table 13 of the appendix to 40 CFR 63, Part CC to meet the following accuracy specifications: the vent flow monitor shall be ± 20 percent of flow rate at velocities ranging from 0.03 to 0.3 meters per second (0.1 to 1 feet per second) ± 5 percent of flow rate at velocities greater than

0.3 meters per second (1 feet per second), all other gas flow monitors shall be ± 5 percent over the normal range of flow measured or 280 liters per minute (10 cubic feet per minute) whichever is greater, temperature monitor shall be ± 1 percent over the normal range of temperature measured, expressed in degrees Celsius (C), or 2.8 degrees C, whichever is greater, and pressure monitor shall be ± 5 percent over the normal operating range or 0.12 kilopascals (0.5 inches of water column), whichever is greater. For purposes of this permit, a calibration check means, at a minimum, using a second device or method to verify that the monitor is accurate as specified in the permit.

For determination of net heating value by gas chromatograph, the minimum accuracy shall be as specified in Performance Specification 9 of Part 60, appendix B. Composition monitoring instruments shall be calibrated, installed, operated, and maintained in accordance with manufacturer recommendations and as specified in 40 CFR §63.671(e) and Table 13 of 40 CFR Pt. 63, Subpart CC. Individual component properties specified in Table 12 of Subpart CC shall apply to net heating value calculations.

- E. Quality assured (or valid) data must be generated during periods that the specified flare is operating. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the flare operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.
 - F. Hourly mass emission rates shall be determined and recorded using the monitoring data collected pursuant to paragraph D of this Special Condition and the emission factors specified in the permit amendment application, PI-1 dated April 10, 2023.
 - G. Pilot and supplemental (fuel) gas combusted in the flares shall be sweet natural gas containing no more than 5 grains of total sulfur per 100 dry standard cubic feet (dscf).
15. When catalyst is fluidized with nitrogen in the No. 4 Activator, the vent stream shall be routed to the No. 4 Activator Water Scrubber, which shall be vented to the Flare (EPN 705).
- A. The No. 4 Activator Water Scrubber shall operate with no less than 99% removal efficiency for acetic acid, methyl acetate, methanol, and sulfuric acid on an hourly average.
 - B. The minimum liquid flow to the scrubber shall be 30 gpm and shall be monitored and recorded at least once an hour.
- The flow monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, or at least annually, whichever is more frequent, and shall be accurate to within 2 percent of span or 5 percent of the design value.
- Quality assured (or valid) data must be generated when the No. 4 Activator is operating. Loss of valid data due to periods of monitor breakdown, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in hours) that the No. 4 Activator operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.
16. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing 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.

Special Conditions

Permit Numbers 1567 and PSDTX118M4

Page 6

Storage tank vents, cooling tower exhaust, and process fugitive emissions are excluded from this requirement. Any other exception to this condition requires prior review and approval by the TCEQ Executive Director, and such exceptions may be subject to strict monitoring requirements.

17. The following safety relief valves at the UCAT-J facility are exempted from the control requirements outlined in Special Condition No.15:

PSVs 3550-101 and 3650-101 (Spray Dryer Inlets)

PSVs 3551-101 and 3651-101 (Cyclone Outlets)

PSVs 3553-100 and 3653-100 (Scrubber Outlets)

PSVs 3555-101 and 3655-101 (Recycle Gas Heaters)

PSVs 3581-100 (Refrigeration Hold Tank)

18. The VOC vent rates to the Small Flare (EPN 705) shall be determined from a combination of material balances, engineering calculations, and data based on computerized logs of measured hydrocarbon concentrations and measured volumetric flow rates. The hydrocarbon concentrations shall be determined by an analyzer system, and the volumetric flow rates shall be measured by a vent stream flow meter. (PSD)

19. Storage tanks are subject to the following requirements:

- A. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar month and the past consecutive 12 month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.
- B. Emissions from tanks shall be calculated using the methods that were used to determine the MAERT limits in the permit renewal application, PI-1 dated March 28, 2024 (TCEQ NSR Project 365671). Sample calculations from the application shall be attached to a copy of this permit at the plant site.
- C. The permit holder shall maintain a record of tank throughput for the previous month and the past consecutive 12-month period for each tank.

Leak Detection and Repair Monitoring Requirements

20. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28M

- A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch (psi), absolute at 100°F or at maximum process operating temperature if less than 100°F or (2) to piping and valves two inches nominal size and smaller or (3) where the operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.

Special Conditions

Permit Numbers 1567 and PSDTX118M4

Page 7

- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute, American Petroleum Institute, American Society of Mechanical Engineers, or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.
- 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. Non-accessible valves, as defined in Title 30 Texas Administrative Code Chapter 115, shall be identified in a list to be made available upon request.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring period after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. 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.

An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)-(b).

- G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. Seal systems that prevent emissions may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure or seals degassing to vent control systems kept in good working order.

Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

- H. Damaged or leaking valves, connectors, compressor seals, and pump seals found to be emitting VOC in excess of 10,000 parts per million by volume or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, 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. At the discretion of the TCEQ Executive Director or a designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

Special Conditions

Permit Numbers 1567 and PSDTX118M4

Page 8

- I. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.
- J. Fugitive emission monitoring required by applicable New Source Performance Standards (NSPS), 40 CFR Part 60, or applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 61, may be used in lieu of Items F through I of this condition.

Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternate standards for these regulations.
- K. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E at all other times.

Sampling Requirements

- 21. The residual hydrocarbon content of the resin which is transferred to silos will be measured quarterly by the sealed can-gas chromatographic test for the “worst-case” resin (resin containing the most entrained hydrocarbons before being purged). The operating unit shall have documentation readily available for inspection showing that the resin tested is the worst-case resin in terms of potential to emit from the storage silos.
 - A. The residual hydrocarbon content of the resin which is transferred to silos shall not exceed the following levels in ppm by weight (ppmw):

| Compound | ppmw |
|------------|------|
| ethylene | 23 |
| butanes | 30 |
| butenes | 20 |
| hexanes | 122 |
| hexenes | 168 |
| isopentane | 67 |

These levels represent the highest residual content of these compounds contained in the resin which may be transferred to silos from the G-5, G-2, G-3, and G-1750 Reactors.

Recordkeeping

- 22. Pursuant to Special Condition No. 8, records shall be kept on-site detailing the date of each inspection, name of the inspector, and any repair and maintenance work performed.
- 23. The holder of this permit shall keep records of the quantity of polyethylene handled on an annual basis. In cases where more than one storage silo has been grouped together in this permit, only a record of the quantity of polyethylene handled in the group of silos is necessary.
- 24. The holder of this permit shall maintain records of the sealed can-gas chromatographic test of the

Special Conditions

Permit Numbers 1567 and PSDTX118M4

Page 9

worst-case resin containing the most entrained hydrocarbons before being purged. The holder shall also have documentation readily available for inspection showing that the resin tested is the worst-case resin in terms of potential to emit from the storage silos.

25. This condition applies to EPNs 1007 and 1009. Records must be updated quarterly and kept on a two-year rolling retention basis and made available to the TCEQ and/or any local air pollution control program having jurisdiction upon request.

A. Logs of replacement or repair of filters used for particulate emission control.

26. Records shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction.

Compliance Assurance Monitoring

27. The following requirements apply to the closed vent capture system which includes all equipment that contains, collects, and transports air pollutants from a source to Large Flare EPN 246 and Small Flare EPN 705.

A. If used to control pollutants other than particulate, either:

- (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or
- (2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.

B. All bypasses for Flare EPN 246 shall comply with either of the following requirements:

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

A bypass does not include authorized analyzer vents, highpoint bleeder vents, low point drains, or rupture discs upstream of pressure relief valves if the pressure between the disc and relief valve is monitored and recorded at least weekly. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when it is required to be in service.

C. Records of the inspections required shall be maintained and if the results of any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

Permits By Rule

28. The following sources and/or activities are authorized under a Permit by Rule (PBR) by Title 30 Texas Administrative Code Chapter 106 (30 TAC Chapter 106). These lists are not intended to be all inclusive and can be altered without modifications to this permit.

Special Conditions
Permit Numbers 1567 and PSDTX118M4
Page 10

| Authorization | Source or Activity |
|-----------------------------|---------------------------|
| PBR Registration No. 112829 | Chromium Charge Pots |
| PBR Registration No. 114503 | Catalyst #5 Activator |
| PBR Registration No. 152780 | UCAT J Ethanol Trial |

Date: May 3, 2024

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 1567 and PSDTX118M4

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) |
| 233 | G5 Catalyst Feed Vent | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | VOC | 0.33 | 1.45 |
| 245 | Y-System Baghouse Vent | PM | 0.10 | 0.19 |
| | | PM ₁₀ | 0.10 | 0.19 |
| | | PM _{2.5} | 0.10 | 0.19 |
| 246 | Large Flare | VOC | 214.30 | 65.32 |
| | | NOx | 31.48 | 17.76 |
| | | CO (PSD) | 227.35 | 128.25 |
| | | SO ₂ | 1.05 | 0.79 |
| 246 | Large Flare (Start-Up, Shutdown, and Maintenance) | VOC | 507.88 | 4.38 |
| | | NOx | 46.31 | 0.40 |
| | | CO | 235.99 | 2.06 |
| 248 | G5 Gas Compressor Seal Oil Vent | VOC | 0.27 | 1.16 |
| 249 | Analyzer Vents | VOC | 0.32 | 1.37 |
| 401, 402, 404, and 615 | X-1, X-2, X-5, and X-6 Transfer Systems | PM | 0.29 | 0.79 (7) |
| | | PM ₁₀ | 0.29 | 0.79 |
| | | PM _{2.5} | 0.29 | 0.79 |
| 403 | X-3 Transfer System | PM | 0.10 | 0.19 |
| | | PM ₁₀ | 0.10 | 0.19 |
| | | PM _{2.5} | 0.10 | 0.19 |
| 409 | Blending Bins Baghouse | PM | 7.20 | 2.70 |
| | | PM ₁₀ | 7.20 | 2.70 |
| | | PM _{2.5} | 7.20 | 2.70 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-----------------------|--|-------------------|------|------|
| 415 | Z-Transfer System | PM | 0.12 | 0.56 |
| | | PM ₁₀ | 0.12 | 0.56 |
| | | PM _{2.5} | 0.12 | 0.56 |
| 540 | Master Batch System Vent | PM | 0.02 | 0.01 |
| | | PM ₁₀ | 0.02 | 0.01 |
| | | PM _{2.5} | 0.02 | 0.01 |
| 1005 | G-5 Product Purge Bin Rotary Feeder Vent | PM | 0.02 | 0.08 |
| | | PM ₁₀ | 0.02 | 0.08 |
| | | PM _{2.5} | 0.02 | 0.08 |
| 1029 | Resin Seed Bed Vent (8) | PM | 8.13 | 0.13 |
| | | PM ₁₀ | 8.13 | 0.13 |
| | | PM _{2.5} | 8.13 | 0.13 |
| 1081 | Block 12 North Catalyst Wash Pot | VOC | 5.87 | 0.85 |
| 1082 | Block 12 Middle Catalyst Wash Pot | VOC | 5.87 | 0.85 |
| 1083 | Block 12 South Catalyst Wash Pot | VOC | 5.87 | 0.85 |
| 1084 | Block 25 Precursor Wash Pot | VOC | 5.87 | 1.45 |
| 1085 | Block 25 G-2/G-4 Blender Wash Pot | VOC | 5.93 | 1.46 |
| Silo Baghouses | | | | |
| 234 H | Silo 101 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 235 H | Silo 102 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 236 H | Silo 103 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-------|-----------------------|-------------------|------|---|
| | | VOC | 7.03 | - |
| 237 H | Silo 104 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 238 H | Silo 105 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 239 H | Silo 106 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 240 H | Silo 107 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 241 H | Silo 201 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 242 H | Silo 202 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 243 H | Silo 203 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-------|-----------------------|-------------------|------|---|
| 244 H | Silo 204 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 399 H | Silo 205 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 400 H | Silo 206 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 387 H | Silo 401 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 388 H | Silo 402 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 389 H | Silo 403 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 390 H | Silo 404 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 391 H | Silo 405 Baghouse (6) | PM | 0.21 | - |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-------|-----------------------|-------------------|------|---|
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 392 H | Silo 406 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 393 H | Silo 301 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 394 H | Silo 302 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 395 H | Silo 303 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 396 H | Silo 304 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 397 H | Silo 305 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| 398 H | Silo 306 Baghouse (6) | PM | 0.21 | - |
| | | PM ₁₀ | 0.21 | - |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---------------------------------------|-------------------|------|-------|
| | | PM _{2.5} | 0.21 | - |
| | | VOC | 7.03 | - |
| | Total Silo Baghouse Cap (7) | PM | - | 0.79 |
| | | PM ₁₀ | - | 0.79 |
| | | PM _{2.5} | - | 0.79 |
| | | VOC | - | 11.46 |
| Blending Bins | | | | |
| 405 | North Blending Bin (6) | PM | 0.90 | - |
| | | PM ₁₀ | 0.90 | - |
| | | PM _{2.5} | 0.90 | - |
| 406 | South Blending Bin (6) | PM | 0.90 | - |
| | | PM ₁₀ | 0.90 | - |
| | | PM _{2.5} | 0.90 | - |
| | Total EPNs 405 and 406 Cap (7) | PM | - | 0.49 |
| | | PM ₁₀ | - | 0.49 |
| | | PM _{2.5} | - | 0.49 |
| 766-3 | Feed Stream Fugitives (5) | VOC | 8.57 | 37.58 |
| 766-7 | Reactor Fugitives (5) | VOC | 5.77 | 25.28 |
| Catalyst Expansion/Isopentane Recovery | | | | |
| 1125 | No. 4 Activator Vent Filter | PM | 0.01 | 0.02 |
| | | PM ₁₀ | 0.01 | 0.02 |
| | | PM _{2.5} | 0.01 | 0.02 |
| 1126 | No. 4 Activator Blow Tank Vent Filter | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| 1127 | G2 Blender Blow Tank Vent Filter | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | VOC | 0.11 | 0.54 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|------|---|-------------------|-------|------|
| 1128 | G4 Blender Blow Tank Vent Filter | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | VOC | 0.11 | 0.54 |
| 1129 | Catalyst Expansion Area Fugitives (5) (9) | VOC | 1.20 | 5.28 |
| 705 | Small Flare (10) | VOC | 17.52 | 8.95 |
| | | NO _x | 8.17 | 3.21 |
| | | CO (PSD) | 12.52 | 4.92 |
| 530 | THF Tank Vent | VOC | 22.06 | 0.53 |
| 535 | Bin 7117 Vent Filter | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | Chromium Metal | 0.01 | 0.01 |
| | | VOC | 0.50 | 0.61 |
| 535L | Bin 7117 Cylinder Loading Filter | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | Chromium Metal | 0.01 | 0.01 |
| | | VOC | 0.20 | 0.24 |
| 1044 | South Ethylene Sieve Vent (6) | VOC | 6.00 | - |
| 1045 | West Ethylene Sieve Vent (6) | VOC | 6.00 | - |
| | Total EPNs 1044 and 1045 Cap (7) | VOC | - | 1.62 |
| 1046 | Isopentane Sieves Combined Vent | VOC | 6.0 | 0.94 |
| 1047 | Butene Sieves Combined Vent | VOC | 6.0 | 3.95 |
| 1048 | Hexene Sieves Combined Vent | VOC | 6.0 | 0.75 |
| 1007 | Catalyst Bin 31 Loading | PM | 0.02 | 0.09 |
| | | PM ₁₀ | 0.02 | 0.09 |
| | | PM _{2.5} | 0.02 | 0.09 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|------------------------|--------------------------------------|-------------------|------|------|
| | | VOC | 0.71 | 3.09 |
| 1009 | Catalyst Cylinder Loading | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | VOC | 0.02 | 0.07 |
| UCAT-J Facility | | | | |
| 705 | Small Flare (10) | VOC | 2.39 | 0.79 |
| | | NOx | 1.13 | 0.38 |
| | | CO | 1.72 | 0.57 |
| 1150 | Silica Charge Pot Filter | PM | 0.01 | 0.02 |
| | | PM ₁₀ | 0.01 | 0.02 |
| | | PM _{2.5} | 0.01 | 0.02 |
| 1151 | Magnesium Chloride Charge Pot Filter | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| 1152A | Product Cylinder Vent | VOC | 0.01 | 0.01 |
| 1152B | Product Cylinder Vent | VOC | 0.01 | 0.01 |
| 1154 | Mineral Oil Tank Vent | VOC | 0.01 | 0.01 |
| 1155 | Fugitives (5) | Inorganic | 0.01 | 0.02 |
| | | VOC | 0.53 | 2.30 |
| 1156A | Fugitives (5) - Silica Truck No. 1 | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| 1156B | Fugitives (5) - Silica Truck No. 2 | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| 1158A | THF Filters | VOC | 0.07 | 0.01 |
| 1158B | THF Filters | VOC | 0.07 | 0.01 |
| 1159A | THF Filters | VOC | 0.07 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-------|-------------|-----|------|------|
| 1159B | THF Filters | VOC | 0.07 | 0.01 |
|-------|-------------|-----|------|------|

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO_x - total oxides of nitrogen
- SO₂ - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented.
- PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented.
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Maximum hourly emission rate from any one emission point listed within a group.
- (7) The combined annual emission from the group of listed emission points is limited to the total annual emission rate cap.
- (8) This EPN is associated with reactor start-up only.
- (9) 0.48 tpy of isopentane is authorized through Permit by Rule Registration Number 44680. This permit by rule has not been voided.
- (10) Compliance with allowable emissions for EPN 705 may be demonstrated by monitoring the combined stream to the flare for UCAT-J Facility and catalyst expansion/isopentane recovery.

Date: May 3, 2024



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Union Carbide Corporation
Authorizing the Continued Operation of
Low Pressure Polyethylene G-1750 Plant
Located at Seadrift, Calhoun County, Texas
Latitude 28.510833 Longitude -96.771666

Permits: 3639 and PSDTX118M4

Issuance Date: May 3, 2024

Expiration Date: May 3, 2034



For the Commission

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

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

1. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources-- Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]¹
2. **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)]
3. **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)]
4. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
5. **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)]
6. **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.
7. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

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

Common Acronyms in Air Permits

| | |
|--|---|
| °C = Temperature in degrees Celsius | GLC _{max} = maximum (predicted) ground-level concentration |
| °F = Temperature in degrees Fahrenheit | gpm = gallon per minute |
| °K = Temperature in degrees Kelvin | gr/100scf = grain per 100 standard cubic feet |
| µg = microgram | gr/dscf = grain per dry standard cubic feet |
| µg/m ³ = microgram per cubic meter | H ₂ CO = formaldehyde |
| acfm = actual cubic feet per minute | H ₂ S = hydrogen sulfide |
| AMOC = alternate means of control | H ₂ SO ₄ = 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 ₂ 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 ³ = 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 _x = total oxides of nitrogen |
| ft = foot or feet | NSPS = New Source Performance Standards |
| ft/sec = foot or feet per second | PAL = plant-wide applicability limit |
| g = gram | |
| gal/wk = gallon per week | |
| gal/yr = gallon per year | |
| GLC = ground level concentration | |

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 PM₁₀ and PM_{2.5}, as represented
PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
PM₁₀ = total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, 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
SO₂ = 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 3639 and PSDTX118M4

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this permit.
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 DDD, Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.
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 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.

Emission Standards and Operational Specifications

5. The annual production of polyethylene from the G-1750 Reactor and the throughput of polyethylene products in the Unit Make Bins (Emission Point Nos. [EPNs] 191 to 206) shall not exceed the amounts specified in the confidential letter dated August 7, 1995. Monthly production records shall be maintained at the plant site on at least a two-year retention basis and shall be made available upon request to Texas Commission on Environmental Quality (TCEQ) personnel.
6. Baghouses shall be operated in accordance with the following requirements:
 - A. Particulate matter outlet grain loading shall not exceed 0.01 grain per dscf of air from any vent. There shall be no visible emissions exceeding 30 seconds in any six-minute period as determined using U.S. Environmental Protection Agency (EPA) Test Method 22.
 - B. The vents covered by this permit shall not operate unless control devices and associated equipment are maintained in good working order and operating. All vents will be inspected for visible emissions once per day when the vent is in operation and a spare-parts filter inventory will be maintained on site. Records shall be maintained of all inspections and maintenance performed.
 - C. When there are visible stack emissions from a filtered vent or leaks from a filtered vent for a period that exceeds five minutes in any two-hour period, the TCEQ Regional Office shall be notified within three days. The process controlled by the filtered vent shall be shut down immediately or rerouted to another control device until failed or damaged parts have been

repaired or replaced. The filtered vent shall not resume operations until it is in good working order.

7. No more than 12,500 pounds of type A catalyst and 12,500 pounds of type G catalysts shall be deactivated per year based on a 12-month rolling average in the Catalyst Wash Pots (EPNs 1079 and 1080).

Flare (EPN 246)

8. Flare (EPN 246) 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 steam assist to the flare.
- D. The permit holder shall install a continuous flow monitor and composition analyzer (or calorimeter, if applicable) 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 $\pm 5.0\%$, temperature monitor shall be $\pm 2.0\%$ 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.

Compliance Assurance Monitoring (CAM)

9. The following requirements apply to capture systems for the flare (EPN 246).
 - A. If used to control pollutants other than particulate, either:
 - (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or
 - (2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
 - B. If there is a bypass for the control device, comply with either of the following requirements:
 - (1) Install a flow indicator that records and verifies zero flow at least once every fifteen minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
 - (2) Once a month, inspect the valves, verifying that the position of the valves and the condition of the car seals prevent flow out the bypass.

A bypass does not include authorized analyzer vents, highpoint bleeder vents, low point drains, or rupture discs upstream of pressure relief valves if the pressure between the disc and relief valve is monitored and recorded at least weekly. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when it is required to be in service.
 - C. Records of the inspections required shall be maintained and if the results of any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

Fugitive Monitoring

10. Piping, Valves, Connectors, Pumps, and Compressors in Volatile Organic Compounds (VOC) Service - 28VHP

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

 - A. These conditions 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) to piping and valves two inches nominal size and smaller or (3) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.
 - 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.
- 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. Non-accessible valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made available upon request.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. 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.

An approved gas analyzer shall conform to requirements listed in Title 40 Code of Federal Regulations § 60.485(a) - (b) [40 CFR § 60.485(a) - (b)].

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

- G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.
- J. Every reasonable effort shall be made to repair a leaking component, as specified in this

paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, 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. At the discretion of the TCEQ Executive Director or designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

- K. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.
 - L. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
 - M. 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.
11. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E of Special Condition No. 10 at all other times.

Maintenance Activities

12. This permit authorizes emission from the Poly Flare (EPN 246) for the following maintenance, start-up, and shutdown activities.
- G1750 reactor start-up, shutdown, and maintenance activities
 - Process line flushing
 - G1750 reactor seed bed charges

These emissions are subject to the maximum allowable emission rates indicated on the maximum allowable emission rates table. Any maintenance start-up and shutdown activities from EPN 246 not in the above list are not authorized by this permit.

Date: May 3, 2024

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 3639 and PSDTX118M4

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 Sources - Maximum Allowable Emission Rates

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | |
|---------------------------|---|-----------------------------|----------------|---------|
| | | | lbs/hour | TPY (4) |
| 246 | Large Flare (7) | VOC | 79.53 | 87.95 |
| | | NO _x | 6.93 | 8.72 |
| | | CO | 35.34 | 44.44 |
| 246 | Large Flare Startup, Shutdown, and Maintenance (7) | VOC | 107.89 | 1.22 |
| | | NO _x | 11.10 | 0.12 |
| | | CO | 56.57 | 0.58 |
| 441 | Mark IV Catalyst Feeder Vent | VOC | 0.02 | 0.03 |
| | | PM | 0.04 | 0.02 |
| | | PM ₁₀ | 0.04 | 0.02 |
| | | PM _{2.5} | 0.04 | 0.02 |
| 347 | Unit Analyzer Vents | VOC | 0.11 | 0.46 |
| 351 | Compressor Seal Oil Degassing Reservoir | VOC | 0.20 | 0.86 |
| 766-5 | Fugitives (5) (6) | VOC | 4.50 | 19.72 |
| 191 to 206 | Unit Make Bins | VOC | 9.90 | 34.35 |
| | | PM | 0.13 | 0.35 |
| | | PM ₁₀ | 0.13 | 0.35 |
| | | PM _{2.5} | 0.13 | 0.35 |
| 1043 | Sample Purger | VOC | 0.14 | 0.41 |
| 1079 | Catalyst Wash Pot No. 1 | VOC | 5.87 | 0.85 |
| 1080 | Catalyst Wash Pot No. 2 | VOC | 5.87 | 0.85 |
| 1162 | Portable Mineral Oil Pot Vent | VOC | 0.10 | 0.01 |
| 1178 | Seed Bed Vent | PM | 3.33 | 0.26 |
| | | PM ₁₀ | 3.33 | 0.26 |
| | | PM _{2.5} | 3.33 | 0.26 |
| 1223 | Cycle Gas Line Fugitives (5) (6) | VOC | 0.01 | 0.06 |

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

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

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

Emission Sources - Maximum Allowable Emission Rates

- NO_x - total oxides of nitrogen
- PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented.
- PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) 1.52 tpy of VOC emissions are authorized via Permit by Rule (PBR) Registration Numbers 32964, 31855, and 42305. These PBRs have not been voided.
- (7) SO₂ emissions from the combustion of supplemental natural gas are authorized under NSR Permit No. 1567.

Date: May 3, 2024



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Union Carbide Corporation
Authorizing the Continued Operation of
Catalyst Plant
Located at Seadrift, Calhoun County, Texas
Latitude 28.510833 Longitude -96.771666

Permit: 6361 and PSDTX118M4

Issuance Date: May 3, 2024

Expiration Date: May 3, 2034



For the Commission

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

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

1. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources-- Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]¹
2. **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)]
3. **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)]
4. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
5. **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)]
6. **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.
7. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

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

Common Acronyms in Air Permits

| | |
|--|---|
| °C = Temperature in degrees Celsius | GLC ^{max} = maximum (predicted) ground-level concentration |
| °F = Temperature in degrees Fahrenheit | gpm = gallon per minute |
| °K = Temperature in degrees Kelvin | gr/100scf = grain per 1000 standard cubic feet |
| µg = microgram | gr/dscf = grain per dry standard cubic feet |
| µg/m ³ = microgram per cubic meter | H ₂ CO = formaldehyde |
| acfm = actual cubic feet per minute | H ₂ S = hydrogen sulfide |
| AMOC = alternate means of control | H ₂ SO ₄ = 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 ₂ 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 ³ = 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 _x = total oxides of nitrogen |
| ft = foot or feet | NSPS = New Source Performance Standards |
| ft/sec = foot or feet per second | PAL = plant-wide applicability limit |
| g = gram | |
| gal/wk = gallon per week | |
| gal/yr = gallon per year | |
| GLC = ground level concentration | |

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 PM₁₀ and PM_{2.5}, as represented
PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
PM₁₀ = total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, 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
SO₂ = 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 6361 and PSDTX118M4

Maximum Allowable Emission Rates

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. There shall be no visible emissions during normal operation from the filtered vents associated with the following emission sources: Catalyst Bin 21 (EPN 467), Catalyst Bin 22 (EPN 468), Catalyst Bin 23 (EPN, 469), Catalyst Bin 24 (EPN 470), Catalyst Bin 32 Loading (EPN 1008), Catalyst Cylinder Loading (EPN 1010), Cylinder Loading Filter (EPN 1143), Additive Dump Hopper Filter (EPN 1145), Additive Receiver Filter (EPN 1146), Silica Preheater (EPN 226), No. 1 Activator (EPN 227), No. 1 Activator Blow Tank (EPN 228), Filter Bins 1 through 5 (EPN 229), G-5 Blender Blow Tank (EPN 230), Filter Bins 11 through 15 (EPN 231), Filter Bins 16 through 20 (EPN 232), No. 3 Activator (EPN 772), No. 3 Activator Blow Tank (EPN 773), Silica Dehydrator (EPN 1161), Silica 958 Bin Filter (EPN 1055), Catalyst Loading Filter (EPN 533), Bin 53056 Filter (EPN 534 H), Precursor Unit Blowtank (EPN 536 H), Bin C5392 (EPN 537 H), Bin 5388 (538 H), Bin C5350 (EPN 1055 H).

Federal Program 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 DDD, Standards of Performance for Volatile Organic Compound (VOC) Emissions from Polymer Manufacturing Industry
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 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

Operating Parameters

5. The following tank requirements shall apply:
 - A. Except for labels, logos, etc, not to exceed 15 percent of the tank total surface areas, uninsulated tank exterior surfaces exposed to the sun shall be white or unpainted aluminum.
 - B. Annual throughput of the Liquid Catalyst (isopentane) Storage Tank (EPN 436) shall not exceed 338,000 gallons per year on a 12-month rolling basis. The permit holder shall maintain a record of tank throughput for the previous month and the past consecutive 12-month period for each tank.

Emissions from tanks shall be calculated using the June 2020 revised AP-42 Chapter 7 methods and TCEQ Guidance for short-term emissions. Sample calculations from the application shall be attached to a copy of this permit at the plant site.

- C. The Liquid Catalyst (isopentane) Storage Tank (EPN 436) shall be pressurized to greater than 15 psig except when filling or when the tank is being prepared for maintenance or shutdown. Pressure shall be verified through a pressure monitor.
6. All tanks in the 1998 Polyolefins Catalyst Precursor Project shall be pressurized (≥ 5 pounds per square inch [psi] gauge) and have a capacity of less than 10,000 gallons. Tanks shall vent to a flare meeting the requirements contained in Title 40 Code of Federal Regulations § 60.18 (40 CFR § 60.18).

The tanks that are included in the 1998 Polyolefins Catalyst Precursor Project are: Ethanol (C-3092), Isopentane (C-3091), Monochlorobenzene (C-3090), Aliphatic Alcohol (C-3095), Waste Storage Tank (C-3086), Spent Monochlorobenzene (C-3082) and Spent Isopentane (C-3084).

7. Flares 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 or steam assist to the flare.
 - D. The permit holder shall install a continuous flow monitor and composition analyzer (or calorimeter) 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 $\pm 5.0\%$, temperature monitor shall be $\pm 2.0\%$ at absolute temperature, and pressure monitor shall be ± 5.0 mm Hg.

Calibration of composition analyzers 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

Special Conditions

Permit Numbers 6361 and PSDTX118M4

Page 3

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).

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

The 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. When analyzers are used, hourly mass emission rates shall be determined and recorded using the above readings and the emission factors used in the permit amendment application, PI-1 dated August 12, 2019.

8. The catalyst precursor particulate matter emission sources (EPNs 1143, 1145, and 1146) shall be filtered prior to atmospheric discharge. Particulate matter exiting from these filters shall be at or below the concentration of 0.01 grain/dry standard cubic feet.
9. Catalyst precursor shall be loaded into containers and transported off-site for further processing unless the owner/operator obtains additional authorization by standard exemption or other permit action.
10. This permit authorizes emissions from the Seal Pot (EPN 436) and from the ME Drumline Washer (EPN 1130) for the following maintenance, startup, and shutdown activities:
 - Small process line flushes due to start-up, shutdown, and maintenance activities. Process line flushes that are routed to the Seal Pot (EPN 436) may only occur three hours per year.
 - ME Drumline Washing which is limited to 730 batches per year.

These emissions are subject to the maximum allowable emission rates indicated on the maximum allowable emission rates table. Any maintenance, startup, and shutdown activities not in the above list are not authorized by this permit.

Fugitives

11. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service – 28M
 - A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.5 pound per square inch absolute (psia) at 100°F or at maximum process operating temperature if less than 100°F or (2) for vent lines to the flare or to flexible tubing lines equal to or less than 0.5 inch in diameter, or (3) where the operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.
 - 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.
 - 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. Non-accessible valves, as defined in Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made available upon request.

- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring period after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made, as necessary, to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. 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.

An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)-(b).

- G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. Seal systems that prevent emissions may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure or seals degassing to vent control systems kept in good working order.

Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

- H. Damaged or leaking valves, connectors, compressor seals, and pump seals found to be emitting VOC in excess of 10,000 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. Every reasonable effort shall be made to repair a leaking component as specified in this paragraph within 15 days after the leak is found. If the repair of a component would require a unit shutdown, 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. At the discretion of the Texas Commission on Environmental Quality (TCEQ) Executive Director or a designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

- I. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.

- J. Fugitive emission monitoring required by applicable New Source Performance Standards (NSPS), 40 CFR Part 60, or an applicable National Emission Standard for Hazardous Air

Pollutants (NESHAPS), 40 CFR Part 61, may be used in lieu of Items F through I of this condition.

Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternate standards for these regulations.

- K. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves for safety purposes but shall comply with paragraph E at all other times.

12. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28VHP

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment associated with the G-Mix Blender Fugitives (EPN 766-3A):

- A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 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 to be made available upon request.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable ANSI, API, ASME, or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.
- 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. Non-accessible valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made available upon request.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. No later than the next scheduled quarterly monitoring after initial installation or replacement, all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve shall be closed.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. 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.

An approved gas analyzer shall conform to requirements listed in 40 CFR § 60.485(a)-(b).

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

- G. Except as may be provided for in the special conditions of this permit, all pump and compressor seals shall be monitored with an approved gas analyzer at least quarterly or be

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

- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.
- I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, 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. At the discretion of the TCEQ Executive Director or a designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.
- J. The results of the required fugitive instrument monitoring and maintenance program shall be made available to the TCEQ Executive Director or a designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.
- K. Alternative monitoring frequency schedules of 30 TAC § 115.352-115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.

Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS, or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.

Recordkeeping

- 13. A record of A through D must be maintained for EPNs 436, 1008, 1010, and 467 through 470 to demonstrate compliance with Special Condition No. 1. A record of item E must be maintained for EPNs 1100, and 1140 through 1146 to demonstrate compliance with Special Condition No. 1. Records must be updated quarterly and kept on a two-year rolling retention basis and made available to the TCEQ and/or any local air pollution control program having jurisdiction upon request.
 - A. Catalyst throughput in lb/yr.
 - B. Logs of replacement or repair of filters used for particulate emission control.
 - C. The liquid catalyst (isopentane) tank filling date and volume filled.
 - D. The liquid catalyst (isopentane) annual throughput in gallons.
 - E. Catalyst precursor throughput in lb/yr.

Special Conditions

Permit Numbers 6361 and PSDTX118M4

Page 7

- F. The dates and duration of all process line flushes to the seal pot that occur during maintenance activities.
 - G. The date and duration of each catalyst regeneration from the IC5 bed.
14. The records required by the special conditions of this permit shall be maintained in hard copy or electronic format and shall be maintained for at least five years rather than the two-year period specified in General Condition No. 7. These records shall be made immediately available at the request of personnel from the TCEQ or any air pollution control agency with jurisdiction.

Other Authorizations and Incorporation by Reference

15. The following sources and/or activities are authorized under a Permit by Rule (PBR) or Standard Permit by Title 30 Texas Administrative Code Chapter 106 (30 TAC Chapter 106). These lists are not intended to be all inclusive and can be altered without modifications to this permit.

| Authorization | Source or Activity |
|-------------------------|---|
| Registration No. 104792 | EPN 1140, Fugitive Emissions |
| Registration No. 111680 | EPN 1055H, 553, Storage and Loading |
| Registration No. 42461 | EPN 1100, 1140, Charge Pot Vent to Flare and Fugitive Emissions |
| Registration No. 51164 | EPN 1140 Fugitive Emissions |
| Registration No. 49720 | EPN 1140 Fugitive Emissions |
| Registration No. 114503 | Increase production of UCAT B Catalyst (EPNs 1140, 1008, 1010, 1161, 229, 230, 1130, and 246) |
| Registration No. 145327 | EPN 1100, Catalyst Flare |
| Registration No. 159156 | New flare (EPN 1350), new processing units (EPNs 1351, 1352, 1353, 1354, 1355, 1356), and existing flare (EPN 1100) |

Date: May 3, 2024

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 6361 and PSDTX118M4

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) |
| 436 | Liquid Catalyst Storage Tank, Routine Operations | VOC (6) | 106.96 | 3.42 |
| 436 | Liquid Catalyst Storage Tank, Maintenance, Startup, and Shutdown Activities | VOC (6) | 1.32 | 0.01 |
| 436F | Fugitives from Liquid Catalyst Tank (5) | VOC (6) | 0.49 | 2.14 |
| 467 | Catalyst Bin 21 | PM Catalyst Dust (7) | 0.12 | 0.01 |
| | | PM ₁₀ Catalyst Dust (7) | 0.12 | 0.01 |
| | | PM _{2.5} Catalyst Dust (7) | 0.12 | 0.01 |
| 468 | Catalyst Bin 22 | PM Catalyst Dust (7) | 0.12 | 0.01 |
| | | PM ₁₀ Catalyst Dust (7) | 0.12 | 0.01 |
| | | PM _{2.5} Catalyst Dust (7) | 0.12 | 0.01 |
| | | VOC | 0.04 | 0.14 |
| 469 | Catalyst Bin 23 | PM Catalyst Dust (7) | 0.24 | 0.02 |
| | | PM ₁₀ Catalyst Dust (7) | 0.24 | 0.02 |
| | | PM _{2.5} Catalyst Dust (7) | 0.24 | 0.02 |
| | | VOC | 0.04 | 0.14 |
| 470 | Catalyst Bin 24 | PM Catalyst Dust (7) | 0.24 | 0.02 |
| | | PM ₁₀ Catalyst Dust (7) | 0.24 | 0.02 |
| | | PM _{2.5} Catalyst Dust (7) | 0.24 | 0.02 |
| | | VOC | 0.04 | 0.14 |
| 1008 | Catalyst Bin 32 Loading | PM Catalyst Dust (7) | 0.34 | 0.05 |
| | | PM ₁₀ Catalyst Dust (7) | 0.34 | 0.05 |
| | | PM _{2.5} Catalyst Dust (7) | 0.34 | 0.05 |
| 1010 | Catalyst Cylinder Loading | PM Catalyst Dust (7) | 0.14 | 0.03 |
| | | PM ₁₀ Catalyst Dust (7) | 0.14 | 0.03 |
| | | PM _{2.5} Catalyst Dust (7) | 0.14 | 0.03 |
| 1100 | Catalyst Unit Flare | VOC, other | 45.33 | 9.50 |
| | | Toluene | 0.01 | 0.01 |

Project Number: 372319

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|------------------------|-----------------------------|------------------------------------|--------|-------|
| | | Chlorobenzene | 3.17 | 0.60 |
| | | Aliphatic Alcohol or Glycol Ethers | 0.01 | 0.01 |
| | | n-Hexanol | 0.09 | 0.01 |
| | | o-Cresol | 0.01 | 0.01 |
| | | NO _x | 18.16 | 9.96 |
| | | CO | 155.72 | 85.40 |
| | | HCl | 51.48 | 9.70 |
| | | SO ₂ | 0.63 | 0.45 |
| 1140 | Fugitives (5) (8) | VOC, other | 1.67 | 7.23 |
| | | Toluene | 0.01 | 0.01 |
| | | Chlorobenzene | 0.86 | 3.72 |
| | | Titanium Tetrachloride | 0.10 | 0.42 |
| | | Aliphatic Alcohol or Glycol Ethers | 0.18 | 0.77 |
| | | o-Cresol | 0.11 | 0.45 |
| | | HCl | 0.01 | 0.04 |
| | | Ethylene Glycol | 0.03 | 0.12 |
| 1143 | Cylinder Loading Filter | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | Isopentane | 0.08 | 0.02 |
| | | Chlorobenzene | 0.02 | 0.01 |
| 1144 | Truck Loading Fugitives (5) | VOC, other | 1.93 | 0.05 |
| | | Toluene | 0.01 | 0.01 |
| | | Chlorobenzene | 0.04 | 0.01 |
| | | Titanium Tetrachloride | 0.01 | 0.01 |
| | | Aliphatic Alcohol or Glycol Ethers | 0.01 | 0.01 |
| | | o-Cresol | 0.01 | 0.01 |
| 1145 | Additive Dump Hopper Filter | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| Project Number: 372319 | | | | |
| 1146 | Additive Receiver Filter | PM | 0.01 | 0.05 |
| | | PM ₁₀ | 0.01 | 0.05 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-------------------------------|------------------------------------|-------------------------------------|-------|-------|
| 226 | Silica Preheater | PM Catalyst Dust (7) | 0.10 | 0.02 |
| | | PM ₁₀ Catalyst Dust (7) | 0.10 | 0.02 |
| | | PM _{2.5} Catalyst Dust (7) | 0.10 | 0.02 |
| 227 | No. 1 Activator | PM Catalyst Dust (7) | 0.01 | 0.01 |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.01 |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.01 |
| | | VOC | 7.23 | 0.99 |
| | | NH ₃ | 0.30 | 0.04 |
| 228 | No. 1 Activator Blow Tank | PM Catalyst Dust (7) | 0.04 | 0.01 |
| | | PM ₁₀ Catalyst Dust (7) | 0.04 | 0.01 |
| | | PM _{2.5} Catalyst Dust (7) | 0.04 | 0.01 |
| 229 | Filter Bins 1 through 5 | PM Catalyst Dust (7) | 0.14 | 0.06 |
| | | PM ₁₀ Catalyst Dust (7) | 0.14 | 0.06 |
| | | PM _{2.5} Catalyst Dust (7) | 0.14 | 0.06 |
| 230 | G-5 Blender Blow Tank | PM Catalyst Dust (7) | 0.12 | 0.02 |
| | | PM ₁₀ Catalyst Dust (7) | 0.12 | 0.02 |
| | | PM _{2.5} Catalyst Dust (7) | 0.12 | 0.02 |
| | | VOC | 0.02 | 0.07 |
| 231 | Filter Bins 11 through 15 | PM Catalyst Dust (7) | 0.09 | 0.01 |
| | | PM ₁₀ Catalyst Dust (7) | 0.09 | 0.01 |
| | | PM _{2.5} Catalyst Dust (7) | 0.09 | 0.01 |
| 232 | Filter Bins 16 through 20 | PM Catalyst Dust (7) | 0.13 | 0.02 |
| | | PM ₁₀ Catalyst Dust (7) | 0.13 | 0.02 |
| | | PM _{2.5} Catalyst Dust (7) | 0.13 | 0.02 |
| | | VOC | 0.10 | 0.02 |
| 766-3A | G-Mix Fugitives (5) | VOC | 1.00 | 0.57 |
| 703 | Catalyst Preparation Fugitives (5) | VOC | 0.09 | 0.42 |
| 772 | No. 3 Activator | PM Catalyst Dust (7) | 0.03 | 0.01 |
| | | PM ₁₀ Catalyst Dust (7) | 0.03 | 0.01 |
| | | PM _{2.5} Catalyst Dust (7) | 0.03 | 0.01 |
| | | VOC | 15.80 | 2.38 |
| 773 | No. 3 Activator Blow Tank | PM Catalyst Dust (7) | 0.02 | 0.01 |
| | | PM ₁₀ Catalyst Dust (7) | 0.02 | 0.01 |
| | | PM _{2.5} Catalyst Dust (7) | 0.02 | 0.01 |
| 246 Project Number: 372319 | Large Poly Flare (9) | VOC | 40.51 | 33.48 |
| | | NO _x | 2.74 | 2.20 |
| | | CO | 13.07 | 11.22 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-------|------------------------------|-------------------------------------|------|------|
| | | Titanium Tetrachloride | 0.01 | 0.01 |
| 1161 | Silica Dehydrator | PM | 0.01 | 0.02 |
| | | PM ₁₀ | 0.01 | 0.02 |
| | | PM _{2.5} | 0.01 | 0.02 |
| | | VOC | 0.33 | 0.10 |
| 1130 | ME Drum Liner Washing | VOC | 2.67 | 1.98 |
| 1055 | Silica 958 Bin Filter | SiO ₂ Dust (7) | 0.01 | 0.01 |
| 533 | Catalyst Loading Filter | SiO ₂ Dust | 0.01 | 0.01 |
| 532 | Precursor Fugitives Existing | VOC | 0.44 | 1.95 |
| 534H | Bin 53056 Filter | PM Catalyst Dust (7) | 0.01 | 0.05 |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.05 |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.05 |
| 536H | Precursor Unit Blowtank | PM Catalyst Dust (7) | 0.01 | 0.05 |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.05 |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.05 |
| | | VOC | 0.01 | 0.01 |
| 537H | Bin C5392 | PM Catalyst Dust (7) | 0.01 | 0.05 |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.05 |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.05 |
| | | Chromium | 0.01 | 0.01 |
| 538H | Bin 5388 | PM Catalyst Dust (7) | 0.01 | 0.05 |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.05 |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.05 |
| 1243 | MgCl ₂ Charge Pot | MgCl ₂ | 0.26 | 0.05 |
| 1244 | TiCl ₃ Charge Pot | TiCl ₃ | 0.19 | 0.03 |
| 1055H | Bin C5350 | PM Catalyst Dust (7) | 0.01 | 0.01 |
| | | PM ₁₀ Catalyst Dust (7) | 0.01 | 0.01 |
| | | PM _{2.5} Catalyst Dust (7) | 0.01 | 0.01 |

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

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

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

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

HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10

Emission Sources - Maximum Allowable Emission Rates

| | |
|-------------------|---|
| IOC-U | - inorganic compounds (unspeciated) |
| NO _x | - total oxides of nitrogen |
| SO ₂ | - sulfur dioxide |
| PM | - total particulate matter, suspended in the atmosphere, including PM ₁₀ and PM _{2.5} , as represented |
| PM ₁₀ | - total particulate matter equal to or less than 10 microns in diameter, including PM _{2.5} , as represented |
| PM _{2.5} | - particulate matter equal to or less than 2.5 microns in diameter |
| CO | - carbon monoxide |
| 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 |
| HCl | hydrogen chloride |
| NH ₃ | ammonia |
| SiO ₂ | silicon dioxide |
| TiCl ₃ | titanium(III) chloride |
| MgCl ₂ | magnesium chloride |

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) The VOC as Isopentane.
- (7) Catalyst dust is particulate matter which contains as much as 100 weight percent amorphous silica and not more than 1.00 weight percent hexavalent chromium.
- (8) The 0.24 ton per year (TPY) VOC, 0.46 TPY chlorobenzene, and 0.07 TPY of Cresol are authorized through Permits by Rule (PBR) Registration Numbers 42461, 51164, and 49720. These PBRs have not been voided.
- (9) SO₂ emissions from the combustion of supplemental natural gas are authorized under NSR Permit No. 1567.

Date: May 3, 2024



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Union Carbide Corporation
Authorizing the Construction and Operation of
Seadrift Operations
Located at Seadrift, Calhoun County, Texas
Latitude 28.515 Longitude -96.771666

Permits: 6141A and PSDTX118M4

Amendment Date: October 5, 2023

Expiration Date: September 12, 2029



For the Commission

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

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

1. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources-- Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]¹
2. **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)]
3. **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)]
4. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
5. **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)]
6. **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.
7. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

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

Common Acronyms in Air Permits

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| °C = Temperature in degrees Celsius | gpm = gallon per minute |
| °F = Temperature in degrees Fahrenheit | gr/100scf = grain per 100 standard cubic feet |
| °K = Temperature in degrees Kelvin | gr/dscf = grain per dry standard cubic feet |
| µg = microgram | H ₂ CO = formaldehyde |
| µg/m ³ = microgram per cubic meter | H ₂ S = hydrogen sulfide |
| acfm = actual cubic feet per minute | H ₂ SO ₄ = sulfuric acid |
| AMOC = alternate means of control | 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 |
| AOS = alternative operating scenario | HC = hydrocarbons |
| AP-42 = Air Pollutant Emission Factors, 5th edition | HCl = hydrochloric acid, hydrogen chloride |
| APD = Air Permits Division | Hg = mercury |
| API = American Petroleum Institute | HGB = Houston/Galveston/Brazoria |
| APWL = air pollutant watch list | hp = horsepower |
| BPA = Beaumont/ Port Arthur | hr = hour |
| BACT = best available control technology | IFR = internal floating roof tank |
| BAE = baseline actual emissions | in H ₂ O = inches of water |
| bbl = barrel | in Hg = inches of mercury |
| bbl/day = barrel per day | IR = infrared |
| bhp = brake horsepower | ISC3 = Industrial Source Complex, a dispersion model |
| BMP = best management practices | ISCST3 = Industrial Source Complex Short-Term, a dispersion model |
| Btu = British thermal unit | K = Kelvin; extension of the degree Celsius scaled-down to absolute zero |
| Btu/scf = British thermal unit per standard cubic foot or feet | LACT = lease automatic custody transfer |
| CAA = Clean Air Act | LAER = lowest achievable emission rate |
| CAM = compliance-assurance monitoring | lb = pound |
| CEMS = continuous emissions monitoring systems | lb/day = pound per day |
| cfm = cubic feet (per) minute | lb/hr = pound per hour |
| CFR = Code of Federal Regulations | lb/MMBtu = pound per million British thermal units |
| CN = customer ID number | LDAR = Leak Detection and Repair (Requirements) |
| CNG = compressed natural gas | LNG = liquefied natural gas |
| CO = carbon monoxide | LPG = liquefied petroleum gas |
| COMS = continuous opacity monitoring system | LT/D = long ton per day |
| CPMS = continuous parametric monitoring system | m = meter |
| DFW = Dallas/ Fort Worth (Metroplex) | m ³ = cubic meter |
| DE = destruction efficiency | m/sec = meters per second |
| DRE = destruction and removal efficiency | MACT = maximum achievable control technology |
| dscf = dry standard cubic foot or feet | MAERT = Maximum Allowable Emission Rate Table |
| dscfm = dry standard cubic foot or feet per minute | MERA = Modeling and Effects Review Applicability |
| ED = (TCEQ) Executive Director | mg = milligram |
| EF = emissions factor | mg/g = milligram per gram |
| EFR = external floating roof tank | mL = milliliter |
| EGU = electric generating unit | MMBtu = million British thermal units |
| EI = Emissions Inventory | MMBtu/hr = million British thermal units per hour |
| ELP = El Paso | MSDS = material safety data sheet |
| EPA = (United States) Environmental Protection Agency | MSS = maintenance, startup, and shutdown |
| EPN = emission point number | MW = megawatt |
| ESL = effects screening level | NAAQS = National Ambient Air Quality Standards |
| ESP = electrostatic precipitator | NESHAP = National Emission Standards for Hazardous Air Pollutants |
| FCAA = Federal Clean Air Act | NGL = natural gas liquids |
| FCCU = fluid catalytic cracking unit | NNSR = nonattainment new source review |
| FID = flame ionization detector | NO _x = total oxides of nitrogen |
| FIN = facility identification number | NSPS = New Source Performance Standards |
| ft = foot or feet | PAL = plant-wide applicability limit |
| ft/sec = foot or feet per second | PBR = Permit(s) by Rule |
| g = gram | PCP = pollution control project |
| gal/wk = gallon per week | |
| gal/yr = gallon per year | |
| GLC = ground level concentration | |
| GLC _{max} = maximum (predicted) ground-level concentration | |

PEMS = predictive emission monitoring system
PID = photo ionization detector
PM = periodic monitoring
PM = total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
PM₁₀ = total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, 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
SO₂ = 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 6141A and PSDTX118M4

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 DDD, VOC Emissions from the Polymer Manufacturing Industry
4. These facilities shall comply with all applicable requirements of the U.S. EPA regulations on National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61: **(10/23)**
 - 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. 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, Miscellaneous Organic Chemical Manufacturing
 - C. Subpart GGGGG, National Emission Standards for Hazardous Air Pollutants: Site Remediation.

Emission Standards and Operational Specifications

6. Waste gas emitted from the G-1 and G-2 Purge Bins shall be routed to the Small Flare (Emission Point No. [EPN] 705) at least 95 percent of the total operating time. The waste gas may be routed to the vent recovery system for monomer recovery and reuse or vented directly to the flare with no monomer recovery. The number of hours in a calendar year that the waste gas can be diverted to the Large Flare (EPN 246) from either the G-1 or G 2 Purge Bin vents shall not exceed 5 percent of the total operating time.

For purposes of determining compliance with this permit condition, the total operating time is defined as the sum of the operating hours in a given calendar year for the G-1 and G 2 Purge Bins

Special Conditions

Permit Numbers 6141A and PSDTX118M4

Page 2

7. Reactor 1 Seed Bed (EPN 497) shall not vent to the atmosphere for more than 112 hours per year based on a 12-month rolling average. Reactor 2 Seed Bed (EPN 521) shall not vent to the atmosphere for more than 112 hours per year based on a 12-month rolling average.
8. No more than 12,500 pounds of catalyst shall be deactivated in the Catalyst Wash Pot (EPN 1086) per year based on a 12-month rolling average.

Flares

9. The flares (EPNs 705 and 246) 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 steam assist to the Large Flare (EPN 246) and air assist to the Small Flare (EPN 705). **(01/20)**
 - D. The permit holder shall install a continuous flow monitor and composition analyzer that provide a record of the vent stream flow and composition (total VOC or Btu content) to the flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition (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 $\pm 5.0\%$, temperature monitor shall be $\pm 2.0\%$ 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 using the above readings and the emission factors used in the permit amendment application, PI-1 dated April 10, 2023. **(10/23)**

10. The Flare system, consisting of the Large and Small Flare (EPNs 246 and 705), shall be designed and operated in accordance with the following requirements, applicable after August 12, 2023: **(10/23)**

- A. The flare system shall be designed such that the combined flare vent gas, assist air, and/or total steam to each flare meets the 40 CFR § 63.670 specifications for minimum combustion zone net heating value and maximum tip velocity at all times that flare vent gas may be directed to the flare for more than 15 minutes. Flared gas actual exit velocity, vent gas net heating value, and flared gas combustion zone net heating value shall be determined in accordance with 40 CFR §63.670(k), §63.670(l), and §63.670(m) on a 15-minute block average and recorded at least once every 15 minutes.

If the flare actively receives perimeter assist air, it shall be operated to meet the 40 CFR §63.670 specifications for minimum net heating value dilution parameters.

- B. The flares shall be operated with a pilot flame present at all times when flare vent gas may be directed to the flares. 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. Flares shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours, demonstrated and recorded per the requirements of §63.670(h). This shall be ensured by the use of steam assist to the Large Flare (EPN 246) and air assist to the Small Flare (EPN 705).
- D. The permit holder shall install flow monitors that continuously measure, calculate, and record the total volumetric vent stream flow rate (including waste gas, purge gas, supplemental gas, and sweep gas), and shall install a monitoring system capable of determining the concentration of individual components in the flare vent gas or the net heating value of the flare vent gas. The flow monitor sensor and analyzer sample points shall be installed in the vent stream such that the total vent stream to the flare is measured and analyzed.

If one or more gas streams that combine to comprise the total flare vent gas flow are monitored separately for net heating value and flow, the 15-minute block average net heating value shall be determined separately for each measurement location and a flow-weighted average of the gas stream net heating values shall be used to determine the 15-minute block average net heating value of the cumulative flare vent gas.

If assist air or assist steam is used, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the total volumetric flow rate of assist air and/or assist steam used with the flare.

If pre-mix assist air and/or perimeter assist air are used, the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of separately measuring, calculating, and recording the volumetric flow rate of premix assist air and/or perimeter assist air used with the flare. Continuously monitoring fan speed or power and using fan curves is an acceptable method for continuously monitoring assist air flow rates.

Perimeter assist air includes all air assist except premix assist air. Premix assist air includes any air intentionally entrained in center steam.

Assist air includes premix assist air and perimeter assist air but does not include the surrounding ambient air.

The monitors shall be calibrated or have a calibration check performed as specified in Table 13 of the appendix to 40 CFR 63, Part CC to meet the following accuracy specifications: the vent flow monitor shall be ± 20 percent of flow rate at velocities ranging from 0.03 to 0.3 meters per second (0.1 to 1 feet per second) ± 5 percent of flow rate at velocities greater than 0.3 meters per second (1 feet per second), all other gas flow monitors shall be ± 5 percent over the normal range of flow measured or 280 liters per minute (10 cubic feet per minute) whichever is greater, temperature monitor shall be ± 1 percent over the normal range of temperature measured, expressed in degrees Celsius (C), or 2.8 degrees C, whichever is greater, and pressure monitor shall be ± 5 percent over the normal operating range or 0.12 kilopascals (0.5 inches of water column), whichever is greater. For purposes of this permit, a calibration check means, at a minimum, using a second device or method to verify that the monitor is accurate as specified in the permit.

For determination of net heating value by gas chromatograph, the minimum accuracy shall be as specified in Performance Specification 9 of Part 60, appendix B. Composition monitoring instruments shall be calibrated, installed, operated, and maintained in accordance with manufacturer recommendations and as specified in 40 CFR §63.671(e) and Table 13 of 40 CFR Pt. 63, Subpart CC. Individual component properties specified in Table 12 of Subpart CC shall apply to net heating value calculations.

- E. Quality assured (or valid) data must be generated during periods that the specified flare is operating. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the flare operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.
 - F. Hourly mass emission rates shall be determined and recorded using the monitoring data collected pursuant to paragraph D of this Special Condition and the emission factors specified in the permit amendment application, PI-1 dated April 10, 2023.
 - G. Pilot and supplemental (fuel) gas combusted in the flares shall be sweet natural gas containing no more than 5 grains of total sulfur per 100 dry standard cubic feet (dscf).
11. The VOC vent rates to the Small Flare (EPN 705) shall be determined from a combination of material balances, engineering calculations, and data based on computerized logs of measured hydrocarbon concentrations and measured volumetric flow rates. The hydrocarbon concentrations shall be determined by an analyzer system, and the volumetric flow rates shall be measured by a vent stream flow meter.

Fugitives – 28VHP

12. The following requirements apply to piping, valves, connectors, pumps, agitators, and compressors containing or in contact with fluids that could reasonably be expected to contain greater than or equal to 10 weight percent volatile organic compounds (VOC) at any time.
- A. The requirements of paragraphs F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

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

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

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

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or
- (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72-hour period following the creation of the open-ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

Special Conditions

Permit Numbers 6141A and PSDTX118M4

Page 6

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

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

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

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.
- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The

calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shut down as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I) or 500 pounds, whichever is greater, the TCEQ Regional Manager and any local programs shall be notified and the TCEQ Executive Director may require early unit shut down or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

- J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- K. Alternative monitoring frequency schedules of 30 TAC 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items G through H of this condition.
- L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.
- M. Safety relief valves (1) equipped with an upstream rupture disc and that only discharge to the atmosphere as a result of fire or failure of utilities or (2) that are monitored by the fugitive emission program specified by this permit (28M) are exempt from Special Condition No. 2. (See "Business Confidential" submittal of May 3, 1996, Fugitive Emission Calculation section and letter to TCEQ dated July 21, 2003, for count of relief valves exempted by [2].)

Relief devices exempted from Special Condition No. 2 by (2) above shall be monitored by leak checking at least quarterly using the procedures outlined in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Method 21. Any valves found to be leaking in excess of 500 parts per million (ppm) above background shall be replaced or repaired within 15 days unless a unit shutdown is required. Repair of such equipment shall occur before the end of the next scheduled process unit shutdown.

After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than five calendar days after the pressure release unless the repair is technically infeasible without a process unit shutdown. Repair of such equipment shall occur before the end of the next scheduled process unit shutdown.

Particulate Matter Control

- 13. Particulate matter outlet grain loading shall not exceed 0.01 grain per dscf of air from any emission point after control from each bag filter and/or bag house or other particulate control device. There shall be no visible emissions exceeding 30 seconds in any six-minute period as determined using U.S. EPA Test Method 22.
- 14. The vents covered by this permit shall not operate unless control devices and associated equipment are maintained in good working order and operating. All vents will be inspected for

visible emissions once per day and a spare-parts filter inventory will be maintained on site. Records shall be maintained of all inspections and maintenance performed.

- A. The differential pressure across each baghouse shall be continuously monitored and be recorded at least once an hour. The pressure drop shall be at least the minimum value and shall not exceed the maximum value listed **(11/21)** :

| EPN | Minimum Pressure Drop (inches water gauge) | Maximum Pressure Drop (inches water gauge) |
|-------|---|---|
| 524 | 55 | 89 |
| 1052 | 1.5 | 8 |
| 1053 | 1.5 | 8 |
| 1053A | 0.04 | 0.4 |

- B. 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 ± 0.5 -inch water gauge pressure (± 125 pascals) or a span of ± 2 percent. The monitoring device associated with EPN 1053A shall be accurate to within ± 0.01 -inch water gauge pressure (± 2.5 pascals) or a span of ± 0.1 percent. **(11/21)**
- C. Quality assured (or valid) data must be generated when the baghouses are operating except during the performance of a daily zero check. Loss of valid data due to periods of monitor breakdown, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in hours) that each baghouse operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.
15. No visible emissions shall be allowed from any source permitted to emit particulate matter from this facility; any source found to be emitting any visible emissions shall be considered to be in violation of this condition and shall not be operated until the source in question can be operated with no visible emissions.
16. If there are visible emissions from any filtered vent, the operation associated with the affected filtered vent shall be isolated and shut down in a timely and orderly manner, and that operation shall not be resumed until any failed or damaged parts are repaired or replaced. Records of corrective actions shall be kept. If the duration of visible emissions exceeds five aggregate minutes during any two-hour period, the holder of this permit shall notify the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office within 24 hours of occurrence of the event. Information provided regarding the event shall include date and time of occurrence, duration, cause, and corrective action taken.

Throughput Limits

17. Throughput limits for the permitted facility are defined in terms of polyethylene production from each reactor, pounds per year (lbs/yr). Specific limits are disclosed in the confidential section submitted with the PI-1 Form dated October 31, 2018, and subsequent updates to the application.

Special Conditions

Permit Numbers 6141A and PSDTX118M4

Page 9

Planned Maintenance, Startup and Shutdown

18. This permit authorizes emissions from the Large Flare (EPN 246), the Seed Bed Vents (EPNs 497 and 521), and the Catalyst Wash Pot (EPN 1086) for the following maintenance, start-up, and shutdown activities:

- A. Seed bed transfer into the reaction system.
- B. Catalyst deactivation in the catalyst wash pot.
- C. G-1 and G-2 reactor purges.

These emissions are subject to the maximum allowable emission rates indicated on the MAERT. Any maintenance, start-up, and shutdown activities are not authorized by this permit.

19. Emissions of 1-hexene from the Large Flare (EPN 246) due to planned start-up, shutdown, and maintenance activities associated with the G-1, G-2, and G-3 Reactor (Permit Number 18773) are limited to 135 lbs/hr during any one-hour period.

Continuous Demonstration of Compliance

20. The permit holder shall grant to TCEQ and EPA confirmed representatives:

- A. Entry to the premises upon which permitted facilities or other facilities under the permit holder's control is located, or for which any records are required to be kept under the terms and conditions of this permit;
- B. Access and reproduction rights, at reasonable times, to any records required to be kept under the terms and conditions of this permit or the Act;
- C. Opportunity to conduct at reasonable times an inspection of:
 - (1) Any monitoring equipment or monitoring method required by this permit; or
 - (2) Operations and maintenance activity at the permitted facility; and
- D. Opportunity to sample at reasonable times any emissions of pollutants.

21. The methods for demonstration of compliance are as summarized:

- A. Except for the sources excluded by this condition, all other permitted sources of VOC shall be subject to compliance demonstration by Sealed Can Gas Chromatograph (GC) Method, Leak Detection and Repair (LDAR), or unit material balances and calculations, as appropriate. The sources excluded from these demonstration techniques are EPNs 495, 496, and 523.
- B. Subject to the Sealed Can-GC Method (to be conducted quarterly), EPNs 504, 505, 506, 591, 594, and 1052 may be tested as a combined source (Combined Allowables Entry No. 1); EPNs 507, 508, 509, 1053 and 1053A, may also be tested as a combined source. The Sealed Can-GC Method is outlined in the "Business Confidential" pages of applicant's submittal dated May 3, 1996.

Sampling and Testing

22. Required sampling and testing shall be conducted in accordance with the procedures specified in Special Condition No. 21. All fugitive emission testing shall be conducted in accordance with the

Special Conditions

Permit Numbers 6141A and PSDTX118M4

Page 10

procedures set out in 40 CFR Part 60, Appendix A, Method 21. Testing required by this condition shall be conducted at least once per quarter.

- A. Where multiple identical sources may reasonably be expected to have similar emission rates of similar composition, sampling or testing requirements may be fulfilled by sampling or testing a limited number of sources. The permittee shall apply in writing for approval of this alternative. The application shall include information as needed to verify the similarity of the sources.
- B. Where feasible, emission sampling or testing shall be conducted when the facility is operating at the design maximum production or transfer rate. In order to fulfill sampling or testing requirements when the maximum production or transfer rate cannot be achieved, testing shall be conducted at the highest attainable production rate. Additional testing may be required by the permitting authority at such time when higher production or design rates are achieved.

Compliance Assurance Monitoring

- 23. The following requirements apply to the closed vent capture system which includes all equipment that contains, collects, and transports air pollutants from a source to Lage Flare EPN 246 and Small Flare EPN 705. **(10/23)**
 - A. If used to control pollutants other than particulate, either:
 - (1) Conduct a once a month visual, audible, and/or olfactory inspection of the capture system to verify there are no leaking components in the capture system; or
 - (2) Once a year, verify the capture system is leak-free by inspecting in accordance with 40 CFR Part 60, Appendix A, Test Method 21. Leaks shall be indicated by an instrument reading greater than or equal to 500 ppmv above background.
 - B. All bypasses for Flare EPN 246 shall comply with either of the following requirements:
 - (1) Install a flow indicator that records and verifies zero flow at least once every fifteen minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or
 - (2) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals prevent flow out the bypass.

A bypass does not include authorized analyzer vents, highpoint bleeder vents, low point drains, or rupture discs upstream of pressure relief valves if the pressure between the disc and relief valve is monitored and recorded at least weekly. A deviation shall be reported if the monitoring or inspections indicate bypass of the control device when it is required to be in service.
 - C. Records of the inspections required shall be maintained and if the results of any of the above inspections are not satisfactory, the permit holder shall promptly take necessary corrective action.

Recordkeeping and Reporting

- 24. The facility record shall be comprised of the following:
 - A. Polyethylene production from each reactor, lbs/yr (calendar year basis).

Special Conditions

Permit Numbers 6141A and PSDTX118M4

Page 11

- B. All records required by Special Condition No. 12 (28VHP LDAR).
 - C. Sum of Operating Time, G-1 and G-2 Purge Bins, hours per year.
 - D. Results of any sampling or testing conducted pursuant to any requirement of this permit.
 - E. Findings of any inspection conducted as authorized by Special Condition No. 20.
25. Records shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction. **(10/23)**
26. All correspondence required by this permit shall be submitted to the TCEQ and EPA. The required compliance correspondence (on a quarterly basis) shall include:
- A. Summary reports in accordance with the VOC protocol specified in Special Condition No. 24. These reports shall contain the following information:
 - (1) EPN 246 (Large Flare) - Tons of VOC emitted per quarter.
 - (2) EPN 705 (Small Flare) - Tons of VOC emitted per quarter.
 - (3) Combined Entry No. 1 - Results of the quarterly Sealed Can-GC test, and a calculation of the hourly VOC emissions from these emission points using these results.
 - (4) Combined Entry No. 2 - Results of the quarterly Sealed Can-GC test, and a calculation of the hourly VOC emissions from these emission points using these results.
 - B. Summary reports to indicate periods when either the flare gas analyzer or flow monitor is either out of service or malfunctioning to preclude collection of acceptable data. These periods shall not necessarily indicate departures from compliance with the requirements of this permit.

Date: October 5, 2023

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 6141A and PSDTX118M4

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) |
| 246 | Large Flare | NOx | 24.11 | 3.67 |
| | | CO | 122.85 | 18.70 |
| | | VOC | 215.40 | 37.13 |
| | | Al ₂ O ₃ | 2.28 | 0.10 |
| 246 | Large Flare, Startup, Shutdown, and Maintenance | NOx | 70.84 | 1.30 |
| | | CO | 360.95 | 6.61 |
| | | VOC | 792.88 | 14.59 |
| 479 | No. 2 Silica Activator | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| 480 | No. 2 Silica Activator Blow Tank | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| 481 | Silica Bin 6 | PM | 0.01 | - |
| | | PM ₁₀ | 0.01 | - |
| | | PM _{2.5} | 0.01 | - |
| 482 | Silica Bin 7 | PM | 0.01 | - |
| | | PM ₁₀ | 0.01 | - |
| | | PM _{2.5} | 0.01 | - |
| 481, 482 | Annual Emissions Cap | PM | - | 0.01 |
| | | PM ₁₀ | - | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|--------------------|---------------------------|-------------------|------|------|
| | | PM _{2.5} | - | 0.01 |
| 483 | G-3 Blender Blow Tank | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | VOC | 0.57 | 0.14 |
| 484 | Catalyst Bin 25 | PM | 0.01 | - |
| | | PM ₁₀ | 0.01 | - |
| | | PM _{2.5} | 0.01 | - |
| | | VOC | 0.04 | 0.01 |
| 485 | Catalyst Bin 26 | PM | 0.01 | - |
| | | PM ₁₀ | 0.01 | - |
| | | PM _{2.5} | 0.01 | - |
| | | VOC | 0.04 | 0.01 |
| 486 | Catalyst Bin 27 | PM | 0.01 | - |
| | | PM ₁₀ | 0.01 | - |
| | | PM _{2.5} | 0.01 | - |
| 487 | Catalyst Bin 28 | PM | 0.01 | - |
| | | PM ₁₀ | 0.01 | - |
| | | PM _{2.5} | 0.01 | - |
| 484, 485, 486, 487 | Annual Emissions Cap | PM | - | 0.01 |
| | | PM ₁₀ | - | 0.01 |
| | | PM _{2.5} | - | 0.01 |
| 488 | Middle Catalyst Blow Tank | PM | 0.02 | - |
| | | PM ₁₀ | 0.02 | - |
| | | PM _{2.5} | 0.02 | - |
| | | VOC | 0.59 | 0.15 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|--------------------|---------------------------|-------------------|------|------|
| 489 | North Catalyst Blow Tank | PM | 0.02 | - |
| | | PM ₁₀ | 0.02 | - |
| | | PM _{2.5} | 0.02 | - |
| | | VOC | 2.78 | 0.52 |
| 490 | South Catalyst Blow Tank | PM | 0.02 | - |
| | | PM ₁₀ | 0.02 | - |
| | | PM _{2.5} | 0.02 | - |
| | | VOC | 0.59 | 0.15 |
| 771 | Catalyst Blow Tank | PM | 0.02 | - |
| | | PM ₁₀ | 0.02 | - |
| | | PM _{2.5} | 0.02 | - |
| | | VOC | 0.59 | 0.15 |
| 488, 489, 490, 771 | Annual Emissions Cap | PM | - | 0.02 |
| | | PM ₁₀ | - | 0.02 |
| | | PM _{2.5} | - | 0.02 |
| 491 | G-1 North Catalyst Feeder | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | VOC | 1.02 | 1.93 |
| 492 | G-1 South Catalyst Feeder | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | VOC | 1.02 | 1.93 |
| 493 | G-2 North Catalyst Feeder | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|--|--|-------------------|-------|-------|
| | | VOC | 0.82 | 1.78 |
| 494 | G-2 South Catalyst Feeder | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| | | VOC | 0.82 | 1.78 |
| 495 | G-1 Seal Vent System | VOC | 0.20 | 0.88 |
| 496 | G-2 Seal System Vent | VOC | 0.20 | 0.88 |
| 497 | G-1 Seed Bed Vent | PM | 4.38 | 0.25 |
| | | PM ₁₀ | 4.38 | 0.25 |
| | | PM _{2.5} | 4.38 | 0.25 |
| Combined Allowables - Entry No. 1 | | | | |
| 504, 505, 506, 591, 594, and 1052 | Resin Bin 101, Resin Bin 102, Resin Bin 103, P-1 Feed Hopper, Pellet Dryer Vent, and No. 1 Make Baghouse | VOC | 14.48 | 15.72 |
| Combined Allowables - Entry No. 2 | | | | |
| 507, 508, 509, 1053, 1053A | Resin Bin 201, Resin Bin 202, Resin Bin 203, No. 2 Make Baghouse, and G-2 Conveying System | VOC | 12.14 | 10.16 |
| 502 | No. 1 Trim Vent | PM | 0.10 | 0.01 |
| | | PM ₁₀ | 0.10 | 0.01 |
| | | PM _{2.5} | 0.10 | 0.01 |
| 503 | No. 2 Trim Vent | PM | 0.10 | 0.04 |
| | | PM ₁₀ | 0.10 | 0.04 |
| | | PM _{2.5} | 0.10 | 0.04 |
| 504, 505, 506 | Resin Bin No. 101, 102, and 103 | PM | 0.13 | 0.50 |
| | | PM ₁₀ | 0.13 | 0.50 |
| | | PM _{2.5} | 0.13 | 0.50 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-------------------|-----------------------------------|-------------------|------|------|
| | | VOC (6) | - | - |
| 507, 508, 509 | Resin Bin No. 201, 202, and 203 | PM | 0.10 | 0.41 |
| | | PM ₁₀ | 0.10 | 0.41 |
| | | PM _{2.5} | 0.10 | 0.41 |
| | | VOC (7) | - | - |
| 510 | No. 1 Transfer Conveyor Separator | PM | 0.20 | - |
| | | PM ₁₀ | 0.20 | - |
| | | PM _{2.5} | 0.20 | - |
| 511 | No. 2 Transfer Conveyor Separator | PM | 0.20 | - |
| | | PM ₁₀ | 0.20 | - |
| | | PM _{2.5} | 0.20 | - |
| 768 | Dedicated Transfer System | PM | 0.20 | - |
| | | PM ₁₀ | 0.20 | - |
| | | PM _{2.5} | 0.20 | - |
| 510, 511, and 768 | Annual Emissions Cap | PM | - | 1.04 |
| | | PM ₁₀ | - | 1.04 |
| | | PM _{2.5} | - | 1.04 |
| 512 | No. 1 Loading Conveyor Separator | PM | 0.20 | - |
| | | PM ₁₀ | 0.20 | - |
| | | PM _{2.5} | 0.20 | - |
| 513 | No. 2 Loading Conveyor Separator | PM | 0.15 | - |
| | | PM ₁₀ | 0.15 | - |
| | | PM _{2.5} | 0.15 | - |
| 512 and 513 | Annual Emissions Cap | PM | - | 0.53 |
| | | PM ₁₀ | - | 0.53 |
| | | PM _{2.5} | - | 0.53 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-------|----------------------------------|-------------------|------|-------|
| 514 | Loading Additive Transfer System | PM | 0.14 | 0.02 |
| | | PM ₁₀ | 0.14 | 0.02 |
| | | PM _{2.5} | 0.14 | 0.02 |
| 516 | No. 2 Loading Additive Hopper | PM | 0.01 | 0.04 |
| | | PM ₁₀ | 0.01 | 0.04 |
| | | PM _{2.5} | 0.01 | 0.04 |
| 521 | G-2 Seed Bed Vent | PM | 4.38 | 0.25 |
| | | PM ₁₀ | 4.38 | 0.25 |
| | | PM _{2.5} | 4.38 | 0.25 |
| 522 | Unit Fugitives Block 26 (5) | VOC | 7.17 | 30.01 |
| 523 | Analyzer Vents | VOC | 0.20 | 0.88 |
| 524 | Pelleted Master Batch Baghouse | PM | 0.02 | 0.01 |
| | | PM ₁₀ | 0.02 | 0.01 |
| | | PM _{2.5} | 0.02 | 0.01 |
| 590 | P-1 Trim Bin Filter | PM | 0.08 | 0.05 |
| | | PM ₁₀ | 0.08 | 0.05 |
| | | PM _{2.5} | 0.08 | 0.05 |
| 591 | P-1 Feed Hopper Filter | PM | 0.01 | 0.05 |
| | | PM ₁₀ | 0.01 | 0.05 |
| | | PM _{2.5} | 0.01 | 0.05 |
| | | VOC (6) | - | - |
| 592 | P-1 Additive (Granular) Filter | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| 592FF | P-1 Feeder Filter B | PM | 0.13 | 0.05 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-------|--------------------------------|--------------------------------|-------|--------|
| | | PM ₁₀ | 0.13 | 0.05 |
| | | PM _{2.5} | 0.13 | 0.05 |
| 593 | P-1 Additive (Pelleted) Filter | PM | 0.01 | 0.01 |
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| 593FF | P-1 Feeder Filter A | PM | 0.13 | 0.05 |
| | | PM ₁₀ | 0.13 | 0.05 |
| | | PM _{2.5} | 0.13 | 0.05 |
| 594 | P-1 Pellet Dryer Exhaust | PM | 0.65 | 1.91 |
| | | PM ₁₀ | 0.65 | 1.91 |
| | | PM _{2.5} | 0.65 | 1.91 |
| | | VOC (6) | - | - |
| 595 | P-1 Elutriator Filter | PM | 0.07 | 0.19 |
| | | PM ₁₀ | 0.07 | 0.19 |
| | | PM _{2.5} | 0.07 | 0.19 |
| 705 | Small Flare | NOx | 31.39 | 47.95 |
| | | CO | 97.15 | 148.42 |
| | | VOC | 44.79 | 37.19 |
| | | SO ₂ | 5.92 | 1.15 |
| | | AL ₂ O ₃ | 2.28 | 2.08 |
| 761 | Catalyst Bin 29 | PM | 0.02 | 0.01 |
| | | PM ₁₀ | 0.02 | 0.01 |
| | | PM _{2.5} | 0.02 | 0.01 |
| | | VOC | 2.19 | 0.38 |
| 762 | Catalyst Bin 30 | PM | 0.02 | 0.01 |
| | | PM ₁₀ | 0.02 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---------|------------------------------|-------------------|------|------|
| | | PM _{2.5} | 0.02 | 0.01 |
| | | VOC | 2.19 | 0.38 |
| 765 | Microtalc Filter | PM | 0.12 | 0.02 |
| | | PM ₁₀ | 0.12 | 0.02 |
| | | PM _{2.5} | 0.12 | 0.02 |
| 765DFUG | Talc Unloading (5) | PM | 1.67 | 0.05 |
| | | PM ₁₀ | 1.67 | 0.05 |
| | | PM _{2.5} | 1.67 | 0.05 |
| 766 | Fugitives, Block 12 (5) | VOC | 0.11 | 0.49 |
| 769 | Fugitives, Block 17 (5) | VOC | 0.19 | 0.85 |
| 1040 | Additive Feeder | PM | 0.01 | 0.02 |
| | | PM ₁₀ | 0.01 | 0.02 |
| | | PM _{2.5} | 0.01 | 0.02 |
| 1052 | No. 1 Granular Make Baghouse | PM | 0.13 | 0.05 |
| | | PM ₁₀ | 0.13 | 0.05 |
| | | PM _{2.5} | 0.13 | 0.05 |
| | | VOC (6) | - | - |
| 1053 | No. 2 Granular Make Baghouse | PM | 0.10 | 0.39 |
| | | PM ₁₀ | 0.10 | 0.39 |
| | | PM _{2.5} | 0.10 | 0.39 |
| | | VOC (7) | - | - |
| 1053A | G-2 Conveying System | PM | 0.14 | 0.60 |
| | | PM ₁₀ | 0.14 | 0.60 |
| | | PM _{2.5} | 0.14 | 0.60 |
| | | VOC (7) | - | - |
| 1054 | P-1 Additive Conveyor | PM | 0.01 | 0.01 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|-------|---------------------------------------|-------------------|------|------|
| | | PM ₁₀ | 0.01 | 0.01 |
| | | PM _{2.5} | 0.01 | 0.01 |
| 1075D | Talc Feeder Vent Line | PM | 0.04 | 0.17 |
| | | PM ₁₀ | 0.04 | 0.17 |
| | | PM _{2.5} | 0.04 | 0.17 |
| 1086 | Wash Pot | VOC | 5.87 | 0.85 |
| 1090 | G-1 Purge Bin Analyzer | VOC | 0.01 | 0.01 |
| 1148 | Ethylene Heating System Fugitives (5) | VOC | 0.99 | 4.32 |

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - Al₂O₃ - aluminum oxide
 - CO - carbon monoxide
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) See Combined Allowables- Entry No. 1.
- (7) See Combined Allowables- Entry No. 2.

Date: October 5, 2023



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Union Carbide Corporation
Authorizing the Continued Operation of
Seadrift Operations
Located at Seadrift, Calhoun County, Texas
Latitude 28.510555 Longitude -96.771666

Permit: 18773 and PSDTX118M4

Issuance Date: October 17, 2025

Expiration Date: October 17, 2035



For the Commission

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

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

1. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources-- Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]¹
2. **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)]
3. **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)]
4. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
5. **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)]
6. **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.
7. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

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

Common Acronyms in Air Permits

°C = Temperature in degrees Celsius
°F = Temperature in degrees Fahrenheit
°K = Temperature in degrees Kelvin
µg = microgram
µg/m³ = microgram per cubic meter
acfm = actual cubic feet per minute
AMOC = alternate means of control
AOS = alternative operating scenario
AP-42 = Air Pollutant Emission Factors, 5th edition
APD = Air Permits Division
API = American Petroleum Institute
APWL = air pollutant watch list
BPA = Beaumont/ Port Arthur
BACT = best available control technology
BAE = baseline actual emissions
bbl = barrel
bbl/day = barrel per day
bhp = brake horsepower
BMP = best management practices
Btu = British thermal unit
Btu/scf = British thermal unit per standard cubic foot or feet
CAA = Clean Air Act
CAM = compliance-assurance monitoring
CEMS = continuous emissions monitoring systems
cfm = cubic feet (per) minute
CFR = Code of Federal Regulations
CN = customer ID number
CNG = compressed natural gas
CO = carbon monoxide
COMS = continuous opacity monitoring system
CPMS = continuous parametric monitoring system
DFW = Dallas/ Fort Worth (Metroplex)
DE = destruction efficiency
DRE = destruction and removal efficiency
dscf = dry standard cubic foot or feet
dscfm = dry standard cubic foot or feet per minute
ED = (TCEQ) Executive Director
EF = emissions factor
EFR = external floating roof tank
EGU = electric generating unit
EI = Emissions Inventory
ELP = El Paso
EPA = (United States) Environmental Protection Agency
EPN = emission point number
ESL = effects screening level
ESP = electrostatic precipitator
FCAA = Federal Clean Air Act
FCCU = fluid catalytic cracking unit
FID = flame ionization detector
FIN = facility identification number
ft = foot or feet
ft/sec = foot or feet per second
g = gram
gal/wk = gallon per week
gal/yr = gallon per year

GLC = ground level concentration
GLC_{max} = maximum (predicted) ground-level concentration
gpm = gallon per minute
gr/1000scf = grain per 1000 standard cubic feet
gr/dscf = grain per dry standard cubic feet
H₂CO = formaldehyde
H₂S = hydrogen sulfide
H₂SO₄ = sulfuric acid
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
HC = hydrocarbons
HCl = hydrochloric acid, hydrogen chloride
Hg = mercury
HGB = Houston/Galveston/Brazoria
hp = horsepower
hr = hour
IFR = internal floating roof tank
in H₂O = inches of water
in Hg = inches of mercury
IR = infrared
ISC3 = Industrial Source Complex, a dispersion model
ISCST3 = Industrial Source Complex Short-Term, a dispersion model
K = Kelvin; extension of the degree Celsius scaled-down to absolute zero
LACT = lease automatic custody transfer
LAER = lowest achievable emission rate
lb = pound
lb/day = pound per day
lb/hr = pound per hour
lb/MMBtu = pound per million British thermal units
LDAR = Leak Detection and Repair (Requirements)
LNG = liquefied natural gas
LPG = liquefied petroleum gas
LT/D = long ton per day
m = meter
m³ = cubic meter
m/sec = meters per second
MACT = maximum achievable control technology
MAERT = Maximum Allowable Emission Rate Table
MERA = Modeling and Effects Review Applicability
mg = milligram
mg/g = milligram per gram
mL = milliliter
MMBtu = million British thermal units
MMBtu/hr = million British thermal units per hour
MSDS = material safety data sheet
MS = maintenance, startup, and shutdown
MW = megawatt
NAAQS = National Ambient Air Quality Standards
NESHAP = National Emission Standards for Hazardous Air Pollutants
NGL = natural gas liquids
NNSR = nonattainment new source review
NO_x = total oxides of nitrogen
NSPS = New Source Performance Standards

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 PM₁₀ and PM_{2.5}, as represented
PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
PM₁₀ = total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, 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
SO₂ = 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 18773 and PSDTX118M4

Emission Standards

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the Special Conditions.
2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 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 with the exception of those listed below:

| PSV-2001-61 | PSV-2105-60 | PSV-3001-60 | PSV-4101-60 | PSV-5009-60 |
|--------------|-------------|-------------|-------------|--------------|
| PSV-2001-62A | PSV-2109-60 | PSV-3003-60 | PSV-4103-60 | PSV-9004-60 |
| PSV-2001-62B | PSV-2112-60 | PSV-4001-60 | PSV-4106-60 | PSV-53081-30 |
| PSV-2002-60 | PSV-2113-60 | PSV-4001-67 | PSV-4108-60 | PSV-641-33 |

Federal Program 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 Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels.
 - C. Subpart VV, Standards of Performance for Equipment Leaks of Volatile Organic Compounds in the Synthetic Organic Chemicals Manufacturing Industry.
 - D. Subpart DDD, Standards of Performance for Volatile Organic Compound Emissions from the Polymer Manufacturing Industry.
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 for Source Categories in 40 CFR Part 63:
 - A. Subpart A, General Provisions.
 - B. Subpart FFFF, Miscellaneous Organic Chemical Manufacturing.
5. If any condition of this permit is more stringent than the applicable regulations in Special Condition Nos. 3 and 4, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

Special Conditions

Permit Numbers 18773 and PSDTX118M4

Page 2

Filters

6. There shall be no visible emissions during normal operations from filters. All filters shall be maintained in good condition at all times and changed as necessary. A spare-parts filter inventory shall be maintained on site. Records shall be maintained of all inspections and maintenance performed.
7. If there are visible emissions from any filtered vent, the operation associated with the affected filtered vent shall be isolated and shut down in a timely and orderly manner, and that operation shall not be resumed until any failed or damaged parts are repaired or replaced. Records of corrective actions shall be kept. If the duration of visible emissions exceeds five aggregate minutes during any two-hour period, the holder of this permit shall notify the appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office within 24 hours of occurrence of the event. Information provided regarding the event shall include date and time of occurrence, duration, cause, and corrective action taken.
8. All hooding, duct, and collection systems shall be maintained free of holes, cracks, and other conditions that would reduce the collection efficiency of the emission capture system.
9. Particulate matter grain loading shall not exceed 0.01 grains per dscf of air from any vent with the exception of filters on Emission Point Nos. (EPNs) 716FF, 717FF, 718, 722-724, 725, and 1239 - 1242, which will achieve a 99.9 percent removal efficiency.

Leak Detection and Repair Monitoring Program

10. Piping, Valves, Connectors, Pumps, Agitators, and Compressors – 28VHP

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 Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

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

- (1) piping and instrumentation diagram (PID);
 - (2) a written or electronic database or electronic file;
 - (3) color coding;
 - (4) a form of weatherproof identification; or
 - (5) designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

Special Conditions

Permit Numbers 18773 and PSDTX118M4

Page 3

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

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

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or
 - (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once within the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.
- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response

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

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

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.
- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), or 500 pounds, whichever is greater, the TCEQ Regional Manager and any local programs shall be notified and 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.
- J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument

- readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- K. Alternative monitoring frequency schedules of 30 TAC 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.
 - L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.
 - M. As an alternative to comparing the daily emission rate of components on the Delay of Repair (DOR) list to the total emissions from a unit shutdown per the requirements of Special Condition No. 10.I, the cumulative hourly emission rate of all components on the DOR list may be compared to 10 percent of the hourly fugitive emissions in the MAERT in order to determine if the TCEQ Regional Director is to be notified. In addition, the hourly emission rates of each specific compound on the DOR list must be less than 10 percent of the speciated hourly fugitive emission rate of the same compound. If the cumulative hourly emission rate or speciated hourly emission rate of all components on the DOR list are 10% or greater of the fugitive emissions in the MAERT, then the TCEQ Regional Director is to be notified within 15 days of the date of the daily calculation.

Operational Limitations – Polyethylene Facility

- 11. Safety valves that discharge to the atmosphere only as a result of fire or failure of utilities are exempt from Special Condition No. 2 provided that each valve is equipped with a rupture disc upstream. A pressure gauge 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 scheduled process shutdown.
- 12. The production of linear low-density and high-density polyethylene from the polyethylene facility for any 12-month period shall not exceed 715 million pounds. Monthly production records shall be maintained at the plant site for a period of three years and shall be made available for inspection by the Executive Director of the TCEQ or TCEQ representative.
- 13. Flares 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 or have a calibration check performed 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 steam assist to the flare.
- D. The permit holder shall install a continuous flow monitor and composition analyzer (or calorimeter, if applicable) that provide a record of the vent stream flow and composition (total VOC) 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 $\pm 5.0\%$, temperature monitor shall be $\pm 2.0\%$ 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 using the above readings and the emission factors used in the permit application (PI-1 dated October 4, 2014).

- 14. The Small Flare (EPN No. 705) shall operate with no less than 99.5 percent efficiency in disposing of the carbon compounds contained in waste gases captured by the collection system.

Storage Tanks

- 15. Storage tank throughput and service shall be limited to the following:

| Tank Identifier | Service | Fill rate (gallons/hour) | Rolling 12 Month Throughput (gallons) |
|-----------------|---------|--------------------------|---------------------------------------|
| C-172 | IC5 | 76,500 | 42,107,800 |
| C-170 | IC5 | 5,040 | 5,208,000 |

- 16. Storage tanks are subject to the following requirements:
 - A. Tank FIN C-170 shall be routed and vented to Large Flare (EPN 246). Tank Fin C-172 shall be routed and vented to Small Flare (EPN 705).

Special Conditions

Permit Numbers 18773 and PSDTX118M4

Page 7

- B. 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.
- C. The permit holder shall maintain a record of tank throughput for the previous month and the past consecutive 12-month period for each tank. 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 (January 23, 2025). Sample calculations from the application shall be attached to a copy of this permit at the plant site.
- D. In lieu of maintaining records required in Paragraph C, the permit holder may maintain a record of tank throughput for the previous month and the past consecutive 12-month period for each tank. Throughputs for each tank shall not exceed those specified in the permit application, PI-1 dated January 23, 2025 (NSR Project 387910).

Propylene Feed Line

- 17. The Pressure Relief Valves PSV-2008-62 and PSV-2008-63 under the Fugitives (EPN 578A) shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Relief valves equipped with a rupture disc or venting to a control device are not required to be monitored.

Damaged or leaking valves found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping liquids) shall be tagged and replaced or repaired.

Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, 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. The TCEQ Executive Director, at his discretion, may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown.

The results of the required fugitive monitoring and maintenance program shall be made available to the TCEQ Executive Director or his designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, and corrective actions taken.

Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable NSPS, or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.

Recordkeeping Requirements

- 18. Records as required in the special conditions of this permit shall be kept on-site for a minimum of five years and shall be made available to representatives of the TCEQ or any local programs having jurisdiction upon request.
- 19. The following sources and/or activities are authorized under a Permit by Rule (PBR) by Title 30 Texas Administrative Code Chapter 106 (30 TAC Chapter 106). These lists are not intended to be all inclusive and can be altered without modifications to this permit.

Special Conditions
Permit Numbers 18773 and PSDTX118M4
Page 8

| Authorization | Source or Activity |
|----------------------|--|
| PBR 131385 | Authorizes VOC fugitive emissions (EPN 700). |
| PBR 154933 | Authorizes PM emissions from changes to the amount of bed seed charges for G-3 Reactor (EPN 710) |

Date: October 17, 2025

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 18773 and PSDTX118M4

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. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates | |
|------------------------|---|--------------------------|----------------|---------|
| | | | lbs/hour | TPY (4) |
| 700 | Rxn and Ethylene Purification Fugitives (5) | VOC | 7.48 | 24.59 |
| 704 | Analyzer Vent | VOC | 0.22 | 0.96 |
| 705 | Small Flare (7) | CO | 39.41 | 48.49 |
| | | NO _x | 12.73 | 15.67 |
| | | VOC | 38.62 | 47.25 |
| 707 | Cycle Gas Compressor Seal and Lube Oil Vent | VOC | 0.11 | 0.48 |
| 708 | Catalyst Transfer Tank Vent Filter | PM | <0.01 | <0.01 |
| | | PM ₁₀ | <0.01 | <0.01 |
| | | PM _{2.5} | <0.01 | <0.01 |
| 709 | Catalyst Transfer Tank Vent Filter | PM | <0.01 | <0.01 |
| | | PM ₁₀ | <0.01 | <0.01 |
| | | PM _{2.5} | <0.01 | <0.01 |
| 711 | Catalyst Transfer Tank Vent Filter | PM | <0.01 | <0.01 |
| | | PM ₁₀ | <0.01 | <0.01 |
| | | PM _{2.5} | <0.01 | <0.01 |
| 710 | G-3 Reactor Sed Bed Vent | Polyethylene Dust | 8.13 | 0.20 |
| | | PM ₁₀ | <0.01 | <0.01 |
| | | PM _{2.5} | <0.01 | <0.01 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

| | | | | |
|-----------|--|-------------------|-------|-------|
| 712 | Catalyst Vent Filter | PM | 0.04 | 0.01 |
| | | PM ₁₀ | 0.04 | 0.01 |
| | | PM _{2.5} | 0.04 | 0.01 |
| 715 | Pneumatic Conveyor Vent Filter | PM | 0.01 | <0.01 |
| | | PM ₁₀ | 0.01 | <0.01 |
| | | PM _{2.5} | 0.01 | <0.01 |
| 716 - 717 | Additive Bin Vent Filters | PM | 0.02 | 0.01 |
| | | PM ₁₀ | 0.02 | 0.01 |
| | | PM _{2.5} | 0.02 | 0.01 |
| 716FF | P3 Pelleter Preblender Receiver | Additive Dust | 0.13 | 0.10 |
| | | PM ₁₀ | 0.13 | 0.10 |
| | | PM _{2.5} | 0.13 | 0.10 |
| 717FF | P3 Pelleter Antiox Receiver | Additive Dust | 0.13 | 0.10 |
| | | PM ₁₀ | 0.13 | 0.10 |
| | | PM _{2.5} | 0.13 | 0.10 |
| 718 | Trim Receiver Vent Filter | PM | 0.03 | 0.03 |
| | | PM ₁₀ | 0.03 | 0.03 |
| | | PM _{2.5} | 0.03 | 0.03 |
| 720 | Storage and Blend Bin Vent Filters and Pelleting System Dust Collector | PM | <0.01 | <0.01 |
| | | PM ₁₀ | <0.01 | <0.01 |
| | | PM _{2.5} | <0.01 | <0.01 |
| 721 | Pelleter Dryer Exhaust | PM | 0.95 | 3.58 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

| | | | | |
|----------------|--|-------------------|--------|-------|
| | | PM ₁₀ | <0.01 | <0.01 |
| | | PM _{2.5} | <0.01 | <0.01 |
| 720, 722 – 724 | Storage and Blend Bin Vent Filters and Pelleting System Dust Collector | PM | 0.10 | 0.36 |
| | | PM ₁₀ | 0.10 | 0.36 |
| | | PM _{2.5} | 0.10 | 0.36 |
| | | VOC | 3.12 | 10.06 |
| 725 | Pellet Loading Vent Filter | PM | 0.10 | 0.36 |
| | | PM ₁₀ | 0.10 | 0.36 |
| | | PM _{2.5} | 0.10 | 0.36 |
| 246 | Large Flare (7) | CO | 17.41 | 1.39 |
| | | NO _x | 3.42 | 0.27 |
| | | VOC | 33.08 | 2.78 |
| | | Ethylene | 17.19 | 1.24 |
| 246 | Large Flare Start-Up, Shutdown, and Maintenance | CO | 280.63 | 3.65 |
| | | NO _x | 55.07 | 0.72 |
| | | VOC | 610.00 | 7.93 |
| 1239 | Additive Hopper | PM | 0.04 | 0.06 |
| | | PM ₁₀ | 0.04 | 0.06 |
| | | PM _{2.5} | 0.04 | 0.06 |
| 1240 | Additive Hopper | PM | 0.04 | 0.06 |
| | | PM ₁₀ | 0.04 | 0.06 |
| | | PM _{2.5} | 0.04 | 0.06 |
| 1241 | Additive Hopper | PM | 0.04 | 0.06 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

| | | | | |
|------|-----------------|-------------------|-------|-------|
| | | PM ₁₀ | 0.04 | 0.06 |
| | | PM _{2.5} | 0.04 | 0.06 |
| 1242 | Additive Hopper | PM | 0.04 | 0.06 |
| | | PM ₁₀ | 0.04 | 0.06 |
| | | PM _{2.5} | 0.04 | 0.06 |
| 578A | Fugitives (5) | VOC (6) | 0.05 | 0.22 |
| T101 | Hot Oil System | VOC | <0.01 | <0.01 |

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 CO - carbon monoxide
 NO_x - total oxides of nitrogen
 PM - particulate matter, suspended in the atmosphere, including PM₁₀
 PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (6) Propane and propylene emissions from pressure relief valves PSV-2008-62, PSV-2208-63, and associated piping.
- (7) SO₂ emissions from the combustion of supplemental natural gas are authorized under NSR 1567 for Large Flare (EPN 246) and authorized under NSR 6141A for Small Flare (EPN 705).

Date: October 17, 2025