FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Chevron Phillips Chemical Company, LP

AUTHORIZING THE OPERATION OF
Cedar Bayou Chemical Complex
Polyethylene Unit (PEU 1792)
Petrochemical Manufacturing

LOCATED AT
Harris County, Texas
Latitude 29° 48′ 47″ Longitude 94° 56′ 19″
Regulated Entity Number: RN103919817

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: O2115 Issuance Date: September 11, 2020

For the Commission

Table of Contents

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 A, Subpart FFFF, Subpart DDDDD, or Subpart ZZZZ as identified in the attached Applicable Requirements Summary table are

subject to 30 TAC Chapter 113, Subchapter C, §113.100, § 113.890, § 113.1130, and § 113.1090, respectively, which incorporates the 40 CFR Part 63 Subpart by reference.

F. For the purpose of generating emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 1 (Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 101.302 (relating to General Provisions)

(ii) Title 30 TAC § 101.303 (relating to Emission Reduction Credit Generation Certification)

(iii) Title 30 TAC § 101.304 (relating to Mobile Emission Reduction Credit Generation and Certification)

(iv) Title 30 TAC § 101.309 (relating to Emission Credit Banking and Trading)

(v) The terms and conditions by which the emission limits are established to generate the reduction credit are applicable requirements of this permit

G. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 3 (Mass Emission Cap and Trade Program) Requirements:

(i) Title 30 TAC § 101.352 (relating to General Provisions)

(ii) Title 30 TAC § 101.353 (relating to Allocation of Allowances)

(iii) Title 30 TAC § 101.354 (relating to Allowance Deductions)

(iv) Title 30 TAC § 101.356 (relating to Allowance Banking and Trading)

(v) Title 30 TAC § 101.359 (relating to Reporting)

(vi) Title 30 TAC § 101.360 (relating to Level of Activity Certification)

(vii) The terms and conditions by which the emission limits are established to meet or exceed the cap are applicable requirements of this permit

H. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 101.372 (relating to General Provisions)

(ii) Title 30 TAC § 101.373 (relating to Discrete Emission Reduction Credit Generation and Certification)

(iii) Title 30 TAC § 101.374 (relating to Mobile Discrete Emission Reduction Credit Generation and Certification)

(iv) Title 30 TAC § 101.378 (relating to Discrete Emission Credit Banking and Trading)

(v) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit

I. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 6 (Highly Reactive Volatile Organic Compound Emissions Cap and Trade Program) requirements:

(i) Title 30 TAC § 101.393 (relating to General Provisions)

(ii) Title 30 TAC § 101.394 (relating to Allocation of Allowances)

(iii) Title 30 TAC § 101.396 (relating to Allowance Deductions)

(iv) Title 30 TAC § 101.399 (relating to Allowance Banking and Trading)

(v) Title 30 TAC § 101.400 (relating to Reporting)

(vi) The terms and conditions by which the emission limits are established to meet or exceed the cap are applicable requirements of this permit

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):

A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements

B. Title 30 TAC § 101.3 (relating to Circumvention)

C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ

D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ

E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)

F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)

G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)

H. Title 30 TAC § 101.221 (relating to Operational Requirements)

I. Title 30 TAC § 101.222 (relating to Demonstrations)

J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute 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. 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.

D. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:

(i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)

(ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)

(iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

4. For storage vessels maintaining working pressure as specified in 30 TAC Chapter 115, Subchapter B, Division 1: Storage of Volatile Organic Compounds, the permit holder shall comply with the requirements of 30 TAC § 115.112(e)(1).

5. For industrial wastewater specified in 30 TAC Chapter 115, Subchapter B, the permit holder shall comply with the following requirements for wastewater drains, junction boxes, lift stations and weirs:

   A. Title 30 TAC § 115.142(1)(E) and (F) (relating to Control Requirements)

   B. Title 30 TAC § 115.145 (relating to Approved Test Methods)

   C. Title 30 TAC § 115.146 (relating to Recordkeeping Requirements)

   D. Title 30 TAC § 115.147(2) (relating to Exemptions), for streams with an annual VOC loading of 10 megagrams (11.03 tons) or less

   E. Title 30 TAC § 115.148 (relating to Determination of Wastewater Characteristics)

6. The permit holder shall comply with the following requirements of 30 TAC Chapter 115, Subchapter H, Division 1 for pressure relief devices not controlled by a flare:

   A. Title 30 TAC § 115.725(c)

   B. Title 30 TAC § 115.725(c)(1), (c)(1)(A) - (C)

   C. Title 30 TAC § 115.725(c)(2)

   D. Title 30 TAC § 115.725(c)(3), (c)(3)(A) - (E)

   E. Title 30 TAC § 115.725(c)(4)

   F. Title 30 TAC § 115.725(l)

   G. Title 30 TAC § 115.726(c), (c)(1) - (4)

7. The permit holder shall comply with the requirements of 30 TAC § 115.726(e)(3)(A) for vent streams having no potential to emit HRVOC.

8. The permit holder shall comply with the requirements of 30 TAC § 115.726(e)(3)(A) for vent streams from sources exempt under 30 TAC § 115.727(c)(3).

9. 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)

10. 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)

11. For facilities where total annual benzene quantity from waste is greater than or equal to 10 megagrams per year and subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:

A. Title 40 CFR § 61.342(c)(1)(i) - (iii) (relating to Standards: General)

B. Title 40 CFR § 61.342(c)(2) (relating to Standards: General)

C. For exempting waste streams:

(i) Title 40 CFR § 61.342(c)(3)(ii)(A) - (C) (relating to Standards: General)

D. Title 40 CFR § 61.342(f)(1), and (2) (relating to Standards: General)

E. Title 40 CFR § 61.342(g) (relating to Standards: General)

F. Title 40 CFR § 61.350(a) and (b) (relating to Standards: Delay of Repair)

G. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions)

H. Title 40 CFR § 61.355(j) (relating to Test Methods, Procedures, and Compliance Provisions), for calculation procedures

I. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)

J. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)

K. Title 40 CFR § 61.356(b)(2)(i) - (ii) (relating to Recordkeeping Requirements)

L. Title 40 CFR § 61.356(b)(5) (relating to Recordkeeping Requirements)

M. Title 40 CFR § 61.356(c) (relating to Recordkeeping Requirements)

N. Title 40 CFR § 61.357(a), (d)(1), (d)(2) (d)(6) and (d)(8) (relating to Reporting Requirements)

O. Title 40 CFR § 61.357(d)(3) (relating to Reporting Requirements)

12. For facilities with containers subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:

A. Title 40 CFR § 61.345(a)(1) - (3), (b), and (c) (relating to Standards: Containers)

B. Title 40 CFR § 61.355(h) (relating to Test Methods, Procedures and Compliance Provisions)

C. Title 40 CFR § 61.356(g) (relating to Recordkeeping Requirements)

D. Title 40 CFR § 61.356(h) (relating to Recordkeeping Requirements)

13. 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.

14. 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).

15. For miscellaneous chemical process facilities with Group 2 wastewater streams subject to wastewater operations requirements in 40 CFR Part 63, Subpart FFFF, the permit holder shall comply with the requirements of 40 CFR § 63.132(a), (a)(1), (a)(1)(i), and (a)(3) as specified in § 63.2485(a) (Title 30 TAC Chapter 113, Subchapter C, § 113.890 incorporated by reference).

Additional Monitoring Requirements

16. 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 capture system associated with the VOC 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 actions:

(i) Once a year the permit holder shall inspect the capture system in compliance of CAM for leaks 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 ppm above background or as defined by the underlying applicable requirement; or

(ii) Once a month, the permit holder shall conduct a visual, audible, and/or olfactory inspection of the capture system in compliance of CAM to detect leaking components.

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.

17. 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

18. 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 December 21, 2020 in the application for project 31651), 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

19. 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.

20. 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).

21. 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

22. 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.

23. Permit holder shall comply with the following 30 TAC Chapter 117 requirements:

A. The permit holder shall comply with the compliance schedules and submit written notification to the TCEQ Executive Director as required in 30 TAC Chapter 117, Subchapter H, Division 1:

(i) For sources in the Houston-Galveston-Brazoria Nonattainment area, 30 TAC § 117.9020:

(1) Title 30 TAC § 117.9020(2)(A), (C), and (D)

B. The permit holder shall comply with the Initial Control Plan unit listing requirement in 30 TAC § 117.350(c) and (c)(1).

C. The permit holder shall comply with the requirements of 30 TAC § 117.354 for Final Control Plan Procedures for Attainment Demonstration Emission Specifications and 30 TAC § 117.356 for Revision of Final Control Plan.

24. Use of Emission Credits to comply with applicable requirements:

A. Unless otherwise prohibited, the permit holder may use emission credits to comply with the following applicable requirements listed elsewhere in this permit:

(i) Title 30 TAC Chapter 115

(ii) Title 30 TAC Chapter 117

(iii) Offsets for Title 30 TAC Chapter 116

B. The permit holder shall comply with the following requirements in order to use the emission credits to comply with the applicable requirements:

(i) The permit holder must notify the TCEQ according to 30 TAC § 101.306(c)-(d)

(ii) The emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 1

(iii) The executive director has approved the use of the credit according to 30 TAC § 101.306(c)-(d)

(iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.302(g) and 30 TAC Chapter 122

(v) Title 30 TAC § 101.305 (relating to Emission Reductions Achieved Outside the United States)

25. 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

26. 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

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

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

B. The permit holder shall comply with 40 CFR Part 82, Subpart H related to Halon Emissions Reduction requirements as specified in 40 CFR § 82.250 - § 82.270 and the applicable Part 82 Appendices.

Permit Location

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

Permit Shield (30 TAC § 122.148)

29. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Applicable Requirements Summary

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
1792-50	STORAGE TANKS/VESSELS	N/A	63FFFF-2	40 CFR Part 63, Subpart FFFF	No changing attributes.
1792-51	STORAGE TANKS/VESSELS	N/A	63FFFF-2	40 CFR Part 63, Subpart FFFF	No changing attributes.
CATLOAD	LOADING/UNLOADING OPERATIONS	N/A	R5211-02	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.
E-501/502	INDUSTRIAL PROCESS COOLING TOWERS	N/A	R5760	30 TAC Chapter 115, HRVOC Cooling Towers	Flow Monitoring/Testing Method = Choosing to monitor cooling water flow rate at a location representative of the total flow rate to the cooling tower in accordance with § 115.764(g)(2).
E-501/502	INDUSTRIAL PROCESS COOLING TOWERS	N/A	R5760-1	30 TAC Chapter 115, HRVOC Cooling Towers	Flow Monitoring/Testing Method = Choosing to use the maximum potential flow rate based on the manufacturer's pump performance data in accordance with §115.764(e)(1).
F-75	FUGITIVE EMISSION UNITS	N/A	R5780-ALL	30 TAC Chapter 115, HRVOC Fugitive Emissions	No changing attributes.
F-75	FUGITIVE EMISSION UNITS	N/A	R5352-ALL	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	No changing attributes.
F-75	FUGITIVE EMISSION UNITS	N/A	60DDD-ALL	40 CFR Part 60, Subpart DDD	DDD EEL-VALVE HVY LQD SVC = NOT USING EQUIVALENT EMISSION LIMITATION (EEL)., DDD FUG COMP - EEL = NOT USING EQUIVALENT EMISSION LIMITATION (EEL)., 2.0% = The owner or operator is electing to comply with an allowable

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					percentage of valves leaking of equal to or less than 2.0%., NSPS DDD PUMPS LT LQD SVC = PUMPS IN LIGHT LIQUID SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT., NSPS DDD PUMP HVY LQD SVC = PUMPS IN HEAVY LIQUID SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT., NSPS DDD FLANGES/CONNECT = FLANGES OR CONNECTORS IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT., NSPS DDD COMPRESSORS = COMPRESSORS IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT., NSPS DDD PRD GAS/VAPOR = PRESSURE RELIEF DEVICES IN GAS/VAPOR SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT., NSPS DDD SAMPLING CONNECT = SAMPLING CONNECTION SYSTEMS IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					IN THE FUGITIVE UNIT., NSPS DDD OPEN VALVE/LINE = OPEN-ENDED VALVES OR LINES IN ANY SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT., ENCLOSED COMBUSTION DEV. = USING AN ENCLOSED COMBUSTION DEVICE FOR CONTROL, EEL = NOT USING EQUIVALENT EMISSION LIMITATION (EEL)., COMPLYING W/ §60.482-10 = YES, COMPLYING WITH §60.482-6 = YES, COMPLYING W/ §60.482-10 = YES, COMPLYING WITH §60.482-7 = YES, COMPLYING WITH §60.482-8 = YES, LIGHT LIQ/ HVY LIQ SERVIC =, EEL =, COMPLYING WITH §60.482-8 = YES, COMPLYING WITH §60.482-5 = YES, COMPLYING WITH §60.482-8 = YES, COMPLYING WITH §60.482-3 = YES, COMPLYING WITH §60.482-2 = YES, COMPLYING WITH §60.482-8 = YES, EQUIPMENT IN VACUUM SERVICE = The fugitive unit contains equipment in vacuum service, NSPS DDD VALVE G/V LT LQD = VALVES IN GAS/VAPOR OR LIGHT LIQUID SERVICE ADDRESSED IN 40 CFR 60 (NSPS) SUBPART DDD INCLUDED IN THE FUGITIVE UNIT., NSPS

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					DDD VALVES,
F-75	FUGITIVE EMISSION UNITS	N/A	60DDD-ALL-FFFF	40 CFR Part 60, Subpart DDD	ENCLOSED COMBUSTION DEV. = NOT USING AN ENCLOSED COMBUSTION DEVICE FOR CONTROL, EQUIPMENT IN VACUUM SERVICE = The fugitive unit does not contain equipment in vacuum service, VOC SERVICE LESS THAN 300 HOURS = The owner or operator did not designate the equipment as being in VOC service less than 300 hours per year.
F-75	FUGITIVE EMISSION UNITS	N/A	63FFFF-01	40 CFR Part 63, Subpart FFFF	No changing attributes.
F05	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-03	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
G-214	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	R5131-01	30 TAC Chapter 115, Water Separation	No changing attributes.
GRP-1792VNT	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	1792-15, 1792-16, 1792-17, 1792-18, 1792-23, 1792-35, 1792-36, 1792-37, 1792-38, 1792-39, 1792-40, 1792-4C, 1792-4F, 1792-4G, 1792-4H, 1792-4J, RAILCAR	R5722-02	30 TAC Chapter 115, HRVOC Vent Gas	Waived Testing = The executive director waived testing for identical vents.
GRP-1792VNT	EMISSION POINTS/STATIONARY	1792-15, 1792-16, 1792-17, 1792-18,	R5722-03	30 TAC Chapter 115, HRVOC Vent Gas	Waived Testing = The executive director has not waived testing for

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	VENTS/PROCESS VENTS	1792-23, 1792-35, 1792-36, 1792-37, 1792-38, 1792-39, 1792-40, 1792-4C, 1792-4F, 1792-4G, 1792-4H, 1792-4J, RAILCAR			identical vents.
GRP-1792VNT1	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	1792-21, 1792-22, V-322, V-323, V-331, V-332, V-333, V-334, V-335, V-336, V-345, V-346, V-347, V-348, V-349, V-384	R5722-04	30 TAC Chapter 115, HRVOC Vent Gas	Exempt Date = The vent gas stream became exempt after 12/31/05., Max Flow Rate = The vent gas stream has a maximum potential flow rate greater than 100 dry standard cubic feet per hour (ft3/hr)., HRVOC Concentration = The vent gas stream has a HRVOC concentration less than 100 ppmv at all times.
GRP-1792VNT1	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	1792-21, 1792-22, V-322, V-323, V-331, V-332, V-333, V-334, V-335, V-336, V-345, V-346, V-347, V-348, V-349, V-384	R5722-05	30 TAC Chapter 115, HRVOC Vent Gas	Exempt Date = The vent gas stream is not exempt., Max Flow Rate = The vent gas stream has a maximum potential flow rate less than or equal to 100 dry standard cubic feet per hour (ft3/hr)., HRVOC Concentration = The vent gas stream has a HRVOC concentration of at least 100 ppmv at some times.
H-602	PROCESS HEATERS/FURNACES	N/A	R7310-02	30 TAC Chapter 117, Subchapter B	No changing attributes.
H-602	PROCESS HEATERS/FURNACES	N/A	63DDDDD-01	40 CFR Part 63, Subpart DDDDD	No changing attributes.
LOAD	LOADING/UNLOADING OPERATIONS	N/A	R5211-01	30 TAC Chapter 115, Loading and Unloading of	True Vapor Pressure = True vapor pressure greater than or equal to

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
				VOC	0.5 psia., Daily Throughput = Loading less than 20,000 gallons per day., Chapter 115 Control Device Type = No control device., Vapor Tight = All liquid and vapor lines are equipped with fittings which make vapor-tight connections that close automatically when disconnected.
LOAD	LOADING/UNLOADING OPERATIONS	N/A	R5211-02	30 TAC Chapter 115, Loading and Unloading of VOC	True Vapor Pressure = True vapor pressure less than 0.5 psia.
LOAD	LOADING/UNLOADING OPERATIONS	N/A	63FFFF-2	40 CFR Part 63, Subpart FFFF	No changing attributes.
MG-901	SRIC ENGINES	N/A	R7303-01	30 TAC Chapter 117, Subchapter B	No changing attributes.
MG-901	SRIC ENGINES	N/A	60IIII-2	40 CFR Part 60, Subpart IIII	No changing attributes.
MG-901	SRIC ENGINES	N/A	63ZZZZ-2	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
P-930	SRIC ENGINES	N/A	R7303-01	30 TAC Chapter 117, Subchapter B	No changing attributes.
P-930	SRIC ENGINES	N/A	63ZZZZ-1	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
PROPE1792	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5722-02	30 TAC Chapter 115, HRVOC Vent Gas	Waived Testing = The executive director waived testing for identical vents.
PROPE1792	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5722-03	30 TAC Chapter 115, HRVOC Vent Gas	Waived Testing = The executive director has not waived testing for identical vents.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
PROPE1792	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-02	30 TAC Chapter 115, Vent Gas Controls	VOC Concentration/Emission Rate @ Max Operating Conditions = Either the VOC concentration or emission rate is greater than the applicable exemption limit at maximum actual operating conditions or the alternate recordkeeping requirements of 30 TAC § 115.126(4) are not being selected.
PROPE1792	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-04	30 TAC Chapter 115, Vent Gas Controls	VOC Concentration/Emission Rate @ Max Operating Conditions = The VOC concentration or emission rate is less than the applicable exemption limit at maximum actual operating conditions and the alternate recordkeeping requirements of 30 TAC § 115.126(4) are being selected.
PROPE1792	CHEMICAL MANUFACTURING PROCESS	N/A	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
PROPE1792(5-6)	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-05	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 0.10% or greater.
PROPE1792(5-6)	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-06	40 CFR Part 60, Subpart DDD	Process Emissions = Individual vent gas streams emit continuous emissions., Uncontrolled Annual

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					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%.
PROPE1792(5-6)	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-07	40 CFR Part 60, Subpart DDD	Process Emissions = Individual vent gas streams emit intermittent emissions., Emergency Vent = Emissions are an emergency vent stream from a new, modified, or reconstructed facility.
PROPE1792(5-6)	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-08	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., 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., Table 3 Control Requirements = Calculations from Table 3 require controls.
PROPE1792(5-6)	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-08-FFFF	40 CFR Part 60, Subpart DDD	Process Emissions = Individual vent gas streams emit continuous emissions., Uncontrolled Annual Emissions = Uncontrolled annual

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					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., 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., Table 3 Control Requirements = Calculations from Table 3 require controls.
PROPE1792(5-6)	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-09	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., Continuous Control Device = Incinerator other than a catalytic incinerator., 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., Table 3 Control Requirements = Calculations from Table 3 require controls., Emission Reduction from Control Device = reduce emissions by 98 percent or greater, or exit

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					concentration is 20 ppmv or less.
PROPE1792(5-6)	POLYMER MANUFACTURING PROCESSES	N/A	60DDD-10	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 less than 0.10%.
SUMP	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	R5131-01	30 TAC Chapter 115, Water Separation	No changing attributes.
TK-401	STORAGE TANKS/VESSELS	N/A	R5112-02	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
TK-402	STORAGE TANKS/VESSELS	N/A	R5112-02	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
TK-405	STORAGE TANKS/VESSELS	N/A	R5112-01	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
TK-405	STORAGE TANKS/VESSELS	N/A	63FFFF-2	40 CFR Part 63, Subpart FFFF	No changing attributes.
TK-902	STORAGE TANKS/VESSELS	N/A	R5112-02	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
TK-903	STORAGE TANKS/VESSELS	N/A	R5112-02	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
TOTE	STORAGE TANKS/VESSELS	N/A	R5112-02	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
UNLOAD	LOADING/UNLOADING OPERATIONS	N/A	R5211-03	30 TAC Chapter 115, Loading and Unloading of VOC	True Vapor Pressure = True vapor pressure less than 0.5 psia.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
UNLOAD	LOADING/UNLOADING OPERATIONS	N/A	R5211-04	30 TAC Chapter 115, Loading and Unloading of VOC	True Vapor Pressure = True vapor pressure greater than or equal to 0.5 psia., Daily Throughput = Daily throughput not determined since 30 TAC § 115.217(a)(2)(A) or 30 TAC § 115.217(b)(3)(A) exemption is not utilized., Chapter 115 Control Device Type = No control device., Vapor Tight = All liquid and vapor lines are equipped with fittings which make vapor-tight connections that close automatically when disconnected.
V-430	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-03	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
V-902	STORAGE TANKS/VESSELS	N/A	R5112-02	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V-903	STORAGE TANKS/VESSELS	N/A	R5112-02	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V-911	STORAGE TANKS/VESSELS	N/A	R5112-02	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
X-901	FLARES	N/A	R1111-01	30 TAC Chapter 111, Visible Emissions	No changing attributes.
X-901	FLARES	N/A	R5722-01	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
X-901	FLARES	N/A	60A-01	40 CFR Part 60, Subpart A	Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
X-901	FLARES	N/A	60A-02	40 CFR Part 60, Subpart A	Flare Exit Velocity = Flare exit velocity is greater than or equal to

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					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).
X-901	FLARES	N/A	60A-03	40 CFR Part 60, Subpart A	Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., Heating Value of Gas = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm)
X-901	FLARES	N/A	63A-01	40 CFR Part 63, Subpart A	Heating Value of Gas = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm).
X-901	FLARES	N/A	63A-02	40 CFR Part 63, Subpart A	Heating Value of Gas = Heating value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).
X-901	FLARES	N/A	63A-03	40 CFR Part 63, Subpart A	Heating Value of Gas = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm).
X-901	FLARES	N/A	60A-01-FFFF	40 CFR Part 63, Subpart FFFF	Flare Tip Velocity < 60 feet/sec
X-901	FLARES	N/A	60A-02-FFFF	40 CFR Part 63, Subpart FFFF	Flare Tip Velocity >= 60 feet/sec, but < 400 feet/sec
X-901	FLARES	N/A	63A-01-FFFF	40 CFR Part 63, Subpart FFFF	Flare Tip Velocity < 60 feet/sec
X-901	FLARES	N/A	63A-02-FFFF	40 CFR Part 63, Subpart FFFF	Flare Tip Velocity >= 60 feet/sec, but < 400 feet/sec
X-901-VNT	EMISSION POINTS/STATIONARY	N/A	R5722-01	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	VENTS/PROCESS VENTS				
X-901-VNT	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-01	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
X-901-VNT	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63FFFF-CPV	40 CFR Part 63, Subpart FFFF	Bypass Line = Bypass line valves are secured in the closed position with a car-seal or lock-and-key configuration.
X-901-VNT	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63FFFF-CPV-FFFF	40 CFR Part 63, Subpart FFFF	Bypass Line = No bypass lines.

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)
1792-50	EU	63FFFF-2	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date for your affected source, you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.	None	None	None
1792-51	EU	63FFFF-2	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date for your affected source, you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.	None	None	None
CATLOAD	EU	R5211-02	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(1) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of this division, except as specified.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None
E-501/502	EU	R5760	Highly	30 TAC Chapter	§ 115.761(c)(1)	HRVOC emissions at each	§ 115.764(a)(1)	§ 115.766(a)(1)	§ 115.766(i)(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)
			Reactive VOC	115, HRVOC Cooling Towers	§ 115.761(c)(3) § 115.764(a)(1) § 115.766(i)	site located in Harris County that is subject to this division or Division 1 of this subchapter must not exceed 1,200 pounds of HRVOCs per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.764(a)(3) [G]§ 115.764(a)(6) § 115.764(c) § 115.764(g)(2)	§ 115.766(a)(2) § 115.766(a)(3) § 115.766(a)(5) § 115.766(a)(6) § 115.766(c) [G]§ 115.766(g) [G]§ 115.766(h) § 115.766(i)(1)	
E-501/502	EU	R5760-1	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Cooling Towers	§ 115.761(c)(1) § 115.761(c)(3) § 115.766(i)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 1 of this subchapter must not exceed 1,200 pounds of HRVOCs per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.764(a)(3) [G]§ 115.764(a)(6) § 115.764(c) § 115.764(e)(1)	§ 115.766(a)(1) § 115.766(a)(2) § 115.766(a)(3) § 115.766(a)(5) § 115.766(a)(6) § 115.766(c) [G]§ 115.766(e) [G]§ 115.766(g) [G]§ 115.766(h) § 115.766(i)(1)	§ 115.766(i)(2)
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(5) § 115.787(f) § 115.787(f)(2)	Open-ended valves or lines within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2) § 115.781(f)(3)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(2)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g) § 115.789(1)(B)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.787(f)(3) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	500 ppmv above background as methane for all components.	§ 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2) § 115.789(1)(B)	§ 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(d) § 115.780(b) [G]§ 115.781(a) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i)	All pumps that are equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal are exempt from the monitoring requirement of §115.781(b) and (c). Submerged pumps or sealless pumps may be used to satisfy the requirements of this subsection.	§ 115.782(d)(2)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1) § 115.787(g)				
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(	Agitators within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(c)(1) § 115.781(c)(2) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b)			§ 115.786(g)	
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II)	Pump seals within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(c)(1) § 115.781(c)(2) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1)				
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III)	Compressor seals within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(c)(1) § 115.781(c)(2) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b)				
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv)	Flanges or other connectors within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2) § 115.781(f)(3) § 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2) § 115.789(1)(B)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.789(1)(B)
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1)	Valves within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(5) § 115.787(f) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	processing operation which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(2) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B)	Pressure relief valves (in gaseous service) within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.787(e) § 115.787(f) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(b)(8) § 115.781(e) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§	Process drains within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product,	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(5) § 115.781(b)(6)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.783(4)(A)(i) § 115.783(4)(A)(ii) § 115.783(4)(A)(ii)(I) § 115.783(4)(A)(ii)(II) § 115.783(4)(B) § 115.783(4)(B)(i) § 115.783(4)(B)(ii)	or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(a)	Components that contact a process fluid containing less than 5.0% highly-reactive volatile organic compounds by weight on an annual average basis are exempt from the requirements of this division (relating to Fugitive Emissions), except for 115.786(e) and (g) of this title (relating to Record keeping Requirements).	None	§ 115.786(e) § 115.786(g)	None
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B)	Heat exchanger heads, sight glasses, meters, gauges, sampling connections, bolted manways, hatches, sump covers, junction box vents, and covers and seals on VOC water separators within the process unit or processes listed in	§ 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2)	§ 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.789(1)(B)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv)	§115.780(a) in which a HRVOC is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(f)(3) § 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2) § 115.789(1)(B)	§ 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) [G]§ 115.781(d) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(1) § 115.783(1)(A) § 115.783(1)(B) § 115.783(5) § 115.787(f) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C)	Bypass line valves within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) [G]§ 115.781(d) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2) § 115.786(a)(1)	§ 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(2)(A)(ii) § 115.786(a)(1) § 115.786(a)(2) § 115.786(a)(2)(A) § 115.786(a)(2)(B) § 115.786(b)(1) § 115.786(b)(2) § 115.786(b)(2)(A) § 115.786(b)(2)(B) § 115.786(b)(2)(C) [G]§ 115.786(b)(3) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(2) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)				
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(d) § 115.780(b) [G]§ 115.781(a) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III)	All agitators that are equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal are exempt from the monitoring requirement of §115.781(b) and (c). Submerged pumps or sealless pumps may be used to satisfy the requirements of this subsection.	§ 115.782(d)(2)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1) § 115.787(g)				
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.787(d) § 115.780(b) [G]§ 115.781(a) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.782(c)(1)(C)(i) § 115.782(c)(1)(C)(i)(I) § 115.782(c)(1)(C)(i)(II) § 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3)	All compressors that are equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal are exempt from the monitoring requirement of §115.781(b) and (c). Submerged pumps or sealless pumps may be used to satisfy the requirements of this subsection.	§ 115.782(d)(2)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1) § 115.787(g)				
F-75	EU	R5780-ALL	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.358(c)(1) [G]§ 115.358(h) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(2) § 115.782(b)(3) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv)	Components within the process unit or processes listed in §115.780(a) is subject to the requirements of this division. If the owner of operator elects to use the alternative work practice in §115.358 of this title, a leak is defined as specified in §115.358 of this title, including any leak detected using the alternative work practice on a component that is subject to the requirements of this division but not specifically selected for alternative work practice monitoring.	§ 115.354(1) § 115.354(11) § 115.354(13)(A) § 115.354(13)(B) § 115.354(13)(C) § 115.354(13)(D) § 115.354(13)(E) § 115.354(13)(F) § 115.354(4) § 115.354(5) § 115.354(9) § 115.358(c)(2) § 115.358(d) [G]§ 115.358(e) § 115.358(f) § 115.781(b) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(h)(1) § 115.781(h)(2) § 115.781(h)(3) § 115.781(h)(4) § 115.781(h)(5) [G]§ 115.781(h)(6) § 115.782(b)(4) § 115.782(d)(1) § 115.788(h)(1) [G]§ 115.788(h)(2) § 115.788(h)(3)	§ 115.354(13)(D) § 115.354(13)(E) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(4) § 115.356(5) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) [G]§ 115.786(f) § 115.786(g)	[G]§ 115.358(g) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8) § 115.357(9)	No valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(8) § 115.357(9)	No valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6)	No open-ended valves or lines shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)

Applicable Requirements Summary

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					§ 115.352(7) § 115.357(12) § 115.357(8) § 115.357(9)	process fluid based on sight, smell, or sound.			
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(8) § 115.357(9)	No open-ended valves or lines shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(9) § 115.357(12) § 115.357(8) § 115.357(9)	No pressure relief valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3)	No pressure relief valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by	§ 115.354(1) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(5) § 115.352(7) § 115.352(9) § 115.357(1) § 115.357(8) § 115.357(9)	volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355 § 115.357(1)		
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(7)	No process drains shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(7) § 115.357(1)	No process drains shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(C) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(2)(C) § 115.352(2)(C)(i)	No component shall be allowed to have a VOC leak, for more than 15 days, after discovery. If the owner or operator elects to use the alternative work practice in §115.358 of this title, any leak detected as defined in	§ 115.354(1) § 115.354(11) § 115.354(13)(A) § 115.354(13)(B) § 115.354(13)(C) § 115.354(13)(D) § 115.354(13)(E) § 115.354(13)(F)	§ 115.352(7) § 115.354(13)(D) § 115.354(13)(E) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A)	[G]§ 115.358(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.352(8) § 115.357(8) § 115.358(c)(1) [G]§ 115.358(h)	§115.358 of this title, including any leak detected using the alternative work practice on a component that is subject to the requirements of this division but not specifically selected for alternative work practice monitoring.	§ 115.354(4) § 115.354(5) § 115.354(9) [G]§ 115.355 § 115.358(c)(2) § 115.358(d) [G]§ 115.358(e) § 115.358(f)	§ 115.356(3)(B) [G]§ 115.356(3)(C) [G]§ 115.356(4) § 115.356(5)	
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(2) § 115.352(9)	Each pressure relief valve equipped with a rupture disk must comply with §115.352(9) and §115.356(3)(C).	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(13)	Components/systems that contact a process fluid containing VOC having a true vapor pressure equal to or less than 0.002 psia at 68 degrees Fahrenheit are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(11)	Sampling connection systems, as defined in 40 CFR §63.161 (January 17, 1997), that meet the requirements of 40 CFR §63.166(a) and (b) (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
F-75	EU	R5352-	VOC	30 TAC Chapter	§ 115.357(10)	Instrumentation systems, as	None	§ 115.356	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)
		ALL		115, Pet. Refinery & Petrochemicals		defined in 40 CFR §63.161 (January 17, 1997), that meet 40 CFR §63.169 (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.		§ 115.356(3) [G]§ 115.356(3)(C)	
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(5)	Reciprocating compressors and positive displacement pumps used in natural gas/gasoline processing operations are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(6)	Components at a petroleum refinery or synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process, that contact a process fluid that contains less than 10% VOC by weight and components at a natural gas/gasoline processing operation that contact a process fluid that contains less than 1.0% VOC by weight are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3)	No flanges or other connectors shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration	§ 115.354(1) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(5) § 115.352(7) § 115.352(8) § 115.357(1) § 115.357(12) § 115.357(8)	greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355 § 115.357(1)	§ 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	No pump seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1) § 115.357(8)	No pump seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2)	No pump seals shall be allowed to have a VOC leak, for more than 15 days after discovery which	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(4) § 115.357(8)	exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.		§ 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(4) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(3) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3)	No agitators shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(7) § 115.357(12) § 115.357(8)	based on sight, smell, or sound.			
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(1) § 115.357(12) § 115.357(8)	No agitators shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(1) § 115.357(12) § 115.357(8)	No agitators shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
F-75	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(5)	No flanges or other connectors shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(7) § 115.352(8) § 115.357(12) § 115.357(8)	million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355 § 115.357(1)	§ 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
F-75	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)
F-75	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 pressure relief devices in light-liquid or 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)
F-75	EU	60DDD-ALL	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b)	Comply with the requirements in as stated in §60.482-10 for enclosed	§ 60.482-10(e) § 60.485(a) [G]§ 60.485(b)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(d)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(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)
					§ 60.482-1(g) § 60.482-10(c) § 60.482-10(m) § 60.486(k) § 60.562-2(d) § 60.562-2(e)	combustion devices.	[G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) § 60.562-2(d)	§ 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.562-2(e)	§ 60.487(e) § 60.562-2(e) § 60.565(l)
F-75	EU	60DDD-ALL	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.18 § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-10(d) § 60.482-10(m) § 60.486(k) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-10 for flares.	§ 60.482-10(e) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g) § 60.562-2(d)	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(d) § 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)
F-75	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) § 60.562-2(d) § 60.562-2(e)	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)
F-75	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)	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)

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(e)				
F-75	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) § 60.482-7(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)	Comply with the requirements in as stated in §60.482-7 for valves in gas/vapor or light-liquid service.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [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)	§ 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(f) [G]§ 60.486(g) § 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)
F-75	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)
F-75	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	§ 60.485(a) [G]§ 60.485(b)	§ 60.482-1(g) [G]§ 60.482-10(l)	§ 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) § 60.482-10 [G]§ 60.482-10(f) [G]§ 60.482-10(g) § 60.482-10(h) § 60.482-10(i) [G]§ 60.482-10(j) [G]§ 60.482-10(k) § 60.482-10(m) § 60.486(k) § 60.562-2(d) § 60.562-2(e)	§60.482-10 for closed-vent systems.	[G]§ 60.485(d) § 60.485(f) § 60.562-2(d)	[G]§ 60.486(a) [G]§ 60.486(d) § 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)
F-75	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)
F-75	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(c) § 60.482-9(e) § 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 valves 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)
F-75	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(d) § 60.482-9(f) § 60.486(k) § 60.562-2(d) § 60.562-2(e)	requirements in as stated in §60.482-8 for pumps 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)
F-75	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)
F-75	EU	60DDD-	VOC/TOC	40 CFR Part 60,	§ 60.562-2(a)	Comply with the	§ 60.482-1(f)(1)	§ 60.482-1(g)	§ 60.487(a)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
		ALL		Subpart DDD	§ 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)	requirements as stated in §60.482-2 for pumps in light-liquid service.	§ 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)	[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)	[G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l)
F-75	EU	60DDD-ALL	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(b) § 60.482-7(d)(1) § 60.482-7(d)(2) [G]§ 60.482-7(e) § 60.482-9(a) § 60.482-9(b) [G]§ 60.482-9(c) § 60.482-9(e) § 60.482-9(f) § 60.483-1(a) § 60.483-1(b) § 60.483-1(b)(3) § 60.483-1(c) § 60.483-1(c)(1)	An owner or operator may elect to comply with the requirements specified in §60.483-1 and §60.483-2.	§ 60.482-1(f)(1) § 60.482-1(f)(2) [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) § 60.483-1(b)(2) § 60.483-2(b)(7) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e)	§ 60.483-2(b)(6) [G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) [G]§ 60.486(f) [G]§ 60.486(g)	§ 60.483-1(b)(1) § 60.483-2(a)(2) § 60.487(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.483-1(c)(2) § 60.483-1(c)(3) § 60.483-1(d) § 60.483-2(a)(1) § 60.483-2(b)(1) § 60.483-2(b)(2) § 60.483-2(b)(3) § 60.483-2(b)(4) § 60.483-2(b)(5) [G]§ 60.485(h)		§ 60.485(f)		
F-75	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)
F-75	EU	60DDD-ALL-FFFF	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-1(g) § 60.482-10(d) § 60.482-10(m) § 60.486(k) § 60.562-2(d) § 60.562-2(e) [G]§ 63.2450(e)(5) [G]§ 63.2535(m) [G]§ 63.670	Comply with the requirements in §60.482-10 for flares, but based on overlap provisions in 40 CFR Part 63, Subpart FFFF, comply with § 63.2450(e)(5) instead of § 60.18.	§ 60.482-10(e) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g) § 60.562-2(d) [G]§ 63.671	§ 60.482-1(g) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1) § 60.486(j) § 60.562-2(e) [G]§ 63.2525(m)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.562-2(e) § 60.565(l) § 63.2520(d)(3) [G]§ 63.2520(e)(11)
F-75	EU	63FFFF-01	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2480(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart UU as	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart UU as referenced by Subpart FFFF	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart UU as referenced by Subpart FFFF	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart UU as referenced by Subpart FFFF	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart UU as referenced by Subpart FFFF

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)
					referenced by Subpart FFFF				
F05	EP	R5121-03	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(2)(A) [G]§ 115.122(a)(4) § 115.127(a)(2)	A vent gas stream having a combined weight of volatile organic compounds (VOC) equal to or less than 100 pounds in any continuous 24-hour period is exempt from §115.121(a)(1) of this title.	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2) § 115.126(4)	None
G-214	EU	R5131-01	VOC	30 TAC Chapter 115, Water Separation	§ 115.137(a)(2) [G]§ 115.132(a)(4)	Any single or multiple compartment VOC water separator which separates materials having a true vapor pressure of VOC < .5 psia obtained from any equipment is exempt from §115.132(a).	[G]§ 115.135(a) § 115.136(a)(1) § 115.136(a)(3) § 115.136(a)(4)	§ 115.136(a)(1) § 115.136(a)(3) § 115.136(a)(4)	None
GRP-1792VNT	EP	R5722-02	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(c)(1) § 115.722(c)(3) § 115.725(a)(1)(A) § 115.725(a)(1)(B) § 115.725(a)(1)(C) § 115.725(a)(3) [G]§ 115.725(a)(4) § 115.725(a)(7) § 115.725(a)(7)(C) [G]§ 115.725(l) [G]§ 115.726(a)(2)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 2 of this subchapter must not exceed 1,200 pounds of HRVOC per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.725(a) § 115.725(a)(1)(A) § 115.725(a)(1)(B) § 115.725(a)(1)(C) § 115.725(a)(3) § 115.725(a)(3)(B) [G]§ 115.725(a)(4) § 115.725(a)(5) [G]§ 115.725(a)(7)(A) § 115.725(a)(7)(B) § 115.725(a)(7)(C) [G]§ 115.725(l) § 115.725(n)	§ 115.726(b)(1) § 115.726(b)(2) § 115.726(b)(3) [G]§ 115.726(h) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	[G]§ 115.725(a)(4) § 115.725(a)(5) [G]§ 115.725(a)(7)(A) § 115.725(a)(7)(B) § 115.725(n) [G]§ 115.726(a)(2)
GRP-1792VNT	EP	R5722-03	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(c)(1) § 115.722(c)(3) § 115.725(a)(1)(A) § 115.725(a)(1)(B)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 2 of this	§ 115.725(a) § 115.725(a)(1)(A) § 115.725(a)(1)(B) § 115.725(a)(1)(C)	§ 115.726(b)(1) § 115.726(b)(2) § 115.726(b)(3) [G]§ 115.726(h)	[G]§ 115.725(a)(4) § 115.725(a)(5) § 115.725(n) [G]§ 115.726(a)(2)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.725(a)(1)(C) § 115.725(a)(3) [G]§ 115.725(a)(4) [G]§ 115.725(l) [G]§ 115.726(a)(2)	subchapter must not exceed 1,200 pounds of HRVOC per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.725(a)(3) § 115.725(a)(3)(B) [G]§ 115.725(a)(4) § 115.725(a)(5) [G]§ 115.725(l) § 115.725(n)	§ 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	
GRP-1792VNT1	EP	R5722-04	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(c)(2)	A vent gas stream that has the potential to emit HRVOCs, but has a concentration less than 100 ppmv at all times or has a maximum potential flow rate equal to or less than 100 dry standard cubic feet per hour is exempt from this division with the exception of § 115.726(e)(3)(A) of this title. The maximum potential HRVOC emissions for the sum of all vent gas streams claimed under this exemption, must be less for the account specified in § 115.722(a) or (b) of this title than 0.5 tpy.	None	§ 115.726(e)(3)(A) § 115.726(j)(1) § 115.726(j)(2)	None
GRP-1792VNT1	EP	R5722-05	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(c)(2)	A vent gas stream that has the potential to emit HRVOCs, but has a concentration less than 100 ppmv at all times or has a maximum potential flow rate equal to or less than 100 dry standard cubic feet per hour is exempt from this division with the exception of § 115.726(e)(3)(A) of this title. The maximum	None	§ 115.726(e)(3)(A) § 115.726(j)(2)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						potential HRVOC emissions for the sum of all vent gas streams claimed under this exemption, must be less for the account specified in § 115.722(a) or (b) of this title than 0.5 tpy.			
H-602	EU	R7310-02	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(B) § 117.310(c)(3)	CO emissions must not exceed 400 ppmv at 3.0% O 2, dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.8000(b) § 117.8000(c) § 117.8000(c)(2) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d) ** See Periodic Monitoring Summary	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7)
H-602	EU	R7310-02	NO_X	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(ii) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(2)(C) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO_x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(d) § 117.335(e) § 117.335(g) § 117.340(a) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.340(p)(2)(A) § 117.340(p)(2)(B) § 117.340(p)(2)(C) § 117.8000(b)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) § 117.345(f)(9)	§ 117.335(b) § 117.335(g) § 117.340(p)(2)(D) [G]§ 117.345(b) [G]§ 117.345(c) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4)

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)
						emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	§ 117.8000(c) § 117.8000(c)(1) § 117.8000(c)(3) § 117.8000(c)(5) § 117.8000(c)(6) [G]§ 117.8000(d)		[G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7)
H-602	EU	63DDDDD-01	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
LOAD	EU	R5211-01	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(2)(A) [G]§ 115.212(a)(7) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Any plant, excluding gasoline bulk plants, which loads less than 20,000 gpd of VOC with a true vapor pressure of 0.5 psia or greater is exempt from the requirements of this division, except for the specified requirements.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B) § 115.216(3)(D)	None
LOAD	EU	R5211-02	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(1) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of this division, except as specified.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None
LOAD	EU	63FFFF-2	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2445(d)	If you have a Group 2 emission point that becomes a Group 1	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						emission point after the compliance date for your affected source, you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.			
MG-901	EU	R7303-01	Exempt	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(11) [G]§ 117.310(f)	Units exempted from the provisions of this division except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1) and 117.354(a)(5) include new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and meets the requirements for non-road engines as specified. §117.303(a)(11)(A)-(B)	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
MG-901	EU	60IIII-2	CO	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less	None	None	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 89.112(a)	than 10 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 3.5 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).			
MG-901	EU	60IIII-2	NMHC and NO_X	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than 560 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with an NMHC+NOx emission limit of 6.4 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	None	None	[G]§ 60.4214(d)
MG-901	EU	60IIII-2	PM	40 CFR Part 60, Subpart IIII	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a PM emission limit of 0.20 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	None	None	[G]§ 60.4214(d)
MG-901	EU	60IIII-2	PM	40 CFR Part 60,	§ 60.4205(b)	Emergency stationary CI	None	None	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
			(Opacity)	Subpart IIII	§ 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.113(a)(1) § 89.113(a)(2) § 89.113(a)(3)	ICE, that are not fire pump engines, with displacement < 10 lpc and not constant-speed engines, with max engine power < 2237 KW and a 2007 model year and later or max engine power > 2237 KW and a 2011 model year and later, must comply with following opacity emission limits: 20% during acceleration, 15% during lugging, 50% during peaks in either acceleration or lugging modes as stated in §60.4202(a)(1)-(2), (b)(2) and §89.113(a)(1)-(3) and §1039.105(b)(1)-(3).			
MG-901	EU	63ZZZZ-2	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(b)(1) § 63.6595(c) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	An affected source which meets either of the criteria in paragraphs §63.6590(b)(1)(i)-(ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).	None	None	§ 63.6645(f)
P-930	EU	R7303-01	Exempt	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(10) [G]§ 117.310(f)	Units exempted from the provisions of this division, except as specified in §§117.310(f), 117.340(j), 117.345(f)(6) and (10), 117.350(c)(1), and 117.354(a)(5), include any stationary diesel engine placed into service before	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average; and has not been modified, reconstructed, or relocated on or after October 1, 2001. §117.303(a)(10)(A)-(B)			
P-930	EU	63ZZZZ-1	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.1 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at a major source, you must comply with the requirements as specified in Table 2c.1.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii	§ 63.6625(i) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(e) § 63.6650(f)
PROPE1792	EP	R5722-02	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(c)(1) § 115.722(c)(3) § 115.725(a)(1)(A) § 115.725(a)(1)(B) § 115.725(a)(1)(C) § 115.725(a)(3) [G]§ 115.725(a)(4) § 115.725(a)(7) § 115.725(a)(7)(C) [G]§ 115.725(l) [G]§ 115.726(a)(2)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 2 of this subchapter must not exceed 1,200 pounds of HRVOC per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.725(a) § 115.725(a)(1)(A) § 115.725(a)(1)(B) § 115.725(a)(1)(C) § 115.725(a)(3) § 115.725(a)(3)(B) [G]§ 115.725(a)(4) § 115.725(a)(5) [G]§ 115.725(a)(7)(A) § 115.725(a)(7)(B) § 115.725(a)(7)(C) [G]§ 115.725(l) § 115.725(n)	§ 115.726(b)(1) § 115.726(b)(2) § 115.726(b)(3) [G]§ 115.726(h) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	[G]§ 115.725(a)(4) § 115.725(a)(5) [G]§ 115.725(a)(7)(A) § 115.725(a)(7)(B) § 115.725(n) [G]§ 115.726(a)(2)
PROPE1792	EP	R5722-03	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(c)(1) § 115.722(c)(3) § 115.725(a)(1)(A) § 115.725(a)(1)(B)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 2 of this	§ 115.725(a) § 115.725(a)(1)(A) § 115.725(a)(1)(B) § 115.725(a)(1)(C)	§ 115.726(b)(1) § 115.726(b)(2) § 115.726(b)(3) [G]§ 115.726(h)	[G]§ 115.725(a)(4) § 115.725(a)(5) § 115.725(n) [G]§ 115.726(a)(2)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.725(a)(1)(C) § 115.725(a)(3) [G]§ 115.725(a)(4) [G]§ 115.725(l) [G]§ 115.726(a)(2)	subchapter must not exceed 1,200 pounds of HRVOC per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.	§ 115.725(a)(3) § 115.725(a)(3)(B) [G]§ 115.725(a)(4) § 115.725(a)(5) [G]§ 115.725(l) § 115.725(n)	§ 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	
PROPE1792	EP	R5121-02	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(1) [G]§ 115.122(a)(4)	A vent gas stream from a low-density polyethylene plant is exempt from §115.121(a)(1) of this title if no more than 1.1 pounds of ethylene per 1,000 pounds of product are emitted from all the vent gas streams associated with the formation, handling, and storage of solidified product.	[G]§ 115.125 § 115.126(2) § 115.126(3)(A)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(A)	None
PROPE1792	EP	R5121-04	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(1) [G]§ 115.122(a)(4)	A vent gas stream from a low-density polyethylene plant is exempt from §115.121(a)(1) of this title if no more than 1.1 pounds of ethylene per 1,000 pounds of product are emitted from all the vent gas streams associated with the formation, handling, and storage of solidified product.	[G]§ 115.125 § 115.126(2) § 115.126(3)(A)	§ 115.126 § 115.126(2) § 115.126(3) § 115.126(3)(A)	None
PROPE1792	PRO	63FFFF-1	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2440(a) § 63.2450(a) § 63.2450(l)	This subpart applies to each miscellaneous organic chemical manufacturing affected source.	§ 63.2445(d)	§ 63.2525 § 63.2525(a) [G]§ 63.2525(b) § 63.2525(c) § 63.2525(f) § 63.2525(j)	§ 63.2435(d) § 63.2445(c) § 63.2450(g)(5) § 63.2450(m) § 63.2450(m)(1) § 63.2450(m)(2) § 63.2515(a) § 63.2515(b)(1) § 63.2515(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)
									§ 63.2520(a) [G]§ 63.2520(b) [G]§ 63.2520(c) [G]§ 63.2520(d) § 63.2520(e) § 63.2520(e)(1) [G]§ 63.2520(e)(10) § 63.2520(e)(2) § 63.2520(e)(3) § 63.2520(e)(4) § 63.2520(e)(5) § 63.2520(e)(5)(i) [G]§ 63.2520(e)(5)(ii) [G]§ 63.2520(e)(5)(iii) § 63.2520(e)(6) § 63.2520(e)(7) § 63.2520(e)(9)
PROPE1792 (5-6)	PRO	60DDD-05	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)
PROPE1792 (5-6)	PRO	60DDD-06	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)
PROPE1792 (5-6)	PRO	60DDD-07	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(h)	Emergency vent streams, as defined in §60.561, from a new, modified, or	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						reconstructed polypropylene or polyethylene affected facility are exempt from the requirements of §60.562-1(a)(2).			
PROPE1792 (5-6)	PRO	60DDD-08	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)(ii) § 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)
PROPE1792 (5-6)	PRO	60DDD-08-FFFF	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(C) § 60.562-1(a)(1)(ii) § 60.562-1(d) § 60.562-1(e) [G]§ 63.2450(e)(5) [G]§ 63.2535(m) [G]§ 63.670	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, but based on overlap provisions in 40 CFR Part 63, Subpart FFFF, comply with § 63.2450(e)(5) instead of § 60.18.	[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]§ 63.671	[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) [G]§ 63.2525(m)	§ 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) [G]§ 63.2520(d)(3) [G]§ 63.2520(e)(11)
PROPE1792 (5-6)	PRO	60DDD-09	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-1(a)(1) § 60.562-1(a)(1)(i) § 60.562-1(a)(1)(i)(A) § 60.562-1(a)(1)(ii) § 60.562-1(d)	For each vent stream that emits continuous emissions from affected facility, use procedures in paragraphs (a)(1)(ii)-(iii) for determining which continuous emissions	[G]§ 60.563(a) § 60.563(b) § 60.563(b)(1)(i) § 60.563(c) § 60.563(d)(1) § 60.563(d)(2)	[G]§ 60.563(a) § 60.563(d)(1) § 60.565(a) [G]§ 60.565(a)(1) [G]§ 60.565(b)(2) § 60.565(c)	§ 60.565(a) [G]§ 60.565(a)(1) § 60.565(b)(1) § 60.565(i) § 60.565(j) § 60.565(k)

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(e)	to control as specified.	§ 60.564(a) § 60.564(a)(1) § 60.564(a)(3) [G]§ 60.564(b) [G]§ 60.564(c) [G]§ 60.564(d)	§ 60.565(c)(1) § 60.565(c)(2) § 60.565(c)(2)(i) [G]§ 60.565(g) § 60.565(j)	§ 60.565(k)(1) § 60.565(k)(2) § 60.565(l)
PROPE1792 (5-6)	PRO	60DDD-10	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)
SUMP	EU	R5131-01	VOC	30 TAC Chapter 115, Water Separation	§ 115.137(a)(2) [G]§ 115.132(a)(4)	Any single or multiple compartment VOC water separator which separates materials having a true vapor pressure of VOC < .5 psia obtained from any equipment is exempt from §115.132(a).	[G]§ 115.135(a) § 115.136(a)(1) § 115.136(a)(3) § 115.136(a)(4)	§ 115.136(a)(1) § 115.136(a)(3) § 115.136(a)(4)	None
TK-401	EU	R5112-02	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
TK-402	EU	R5112-02	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None

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)
TK-405	EU	R5112-01	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	[G]§ 115.117 ** See Periodic Monitoring Summary	§ 115.118(a)(5) § 115.118(a)(7)	None
TK-405	EU	63FFFF-2	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date for your affected source, you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.	None	None	None
TK-902	EU	R5112-02	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None

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)
TK-903	EU	R5112-02	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
TOTE	EU	R5112-02	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
UNLOAD	EU	R5211-03	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.217(a)(1) § 115.212(a)(2) § 115.214(a)(1)(B) § 115.214(a)(1)(D) § 115.214(a)(1)(D)(i)	Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of this division, except as specified.	§ 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.215 § 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None
UNLOAD	EU	R5211-04	VOC	30 TAC Chapter 115, Loading and Unloading of VOC	§ 115.212(a)(3) § 115.212(a)(2) § 115.212(a)(3)(A) § 115.212(a)(3)(A)(i) § 115.212(a)(3)(B) [G]§ 115.212(a)(3)(C) § 115.212(a)(3)(D) § 115.214(a)(1)(B) § 115.214(a)(1)(C)	All land-based VOC transfer to or from transport vessels shall be conducted in the manner specified for leak-free operations.	§ 115.212(a)(3)(B) § 115.214(a)(1)(A) § 115.214(a)(1)(A)(i) § 115.214(a)(1)(A)(ii) § 115.214(a)(1)(A)(iii)	§ 115.216 § 115.216(3)(A) § 115.216(3)(A)(i) § 115.216(3)(A)(iii)	None
V-430	EP	R5121-03	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(2)(A) [G]§ 115.122(a)(4) § 115.127(a)(2)	A vent gas stream having a combined weight of volatile organic compounds (VOC)	[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)
						equal to or less than 100 pounds in any continuous 24-hour period is exempt from §115.121(a)(1) of this title.			
V-902	EU	R5112-02	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
V-903	EU	R5112-02	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
V-911	EU	R5112-02	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
X-901	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
X-901	EP	R5722-01	Highly Reactive	30 TAC Chapter 115, HRVOC Vent	§ 115.722(d) § 115.722(d)(1)	All flares must continuously meet the requirements of	[G]§ 115.725(d)(1) § 115.725(d)(2)	§ 115.726(a)(1) § 115.726(a)(1)(A)	§ 115.725(n) § 115.726(a)(1)(B)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
			VOC	Gas	§ 115.722(d)(2) [G]§ 115.725(d)(1) § 115.725(d)(2) § 115.725(d)(2)(A)(i) [G]§ 115.725(d)(2)(A)(ii) § 115.725(d)(2)(A)(iii) § 115.725(d)(2)(A)(iv) § 115.725(d)(2)(B) § 115.725(d)(2)(B)(i) § 115.725(d)(2)(B)(ii) § 115.725(d)(2)(B)(iii) § 115.725(d)(2)(B)(iv) [G]§ 115.725(l) [G]§ 115.726(a)(2)	40 CFR § 60.18(c)(2)-(6) and (d) as amended through October 17, 2000 (65 FR 61744) when vent gas containing HRVOC is being routed to the flare.	§ 115.725(d)(2)(A)(i) [G]§ 115.725(d)(2)(A)(ii) § 115.725(d)(2)(A)(iii) § 115.725(d)(2)(A)(iv) § 115.725(d)(2)(B) § 115.725(d)(2)(B)(i) § 115.725(d)(2)(B)(ii) § 115.725(d)(2)(B)(iii) § 115.725(d)(2)(B)(iv) § 115.725(d)(3) § 115.725(d)(4) § 115.725(d)(5) § 115.725(d)(6) § 115.725(d)(7) § 115.725(k)(1) [G]§ 115.725(l) § 115.725(n)	§ 115.726(d)(1) § 115.726(d)(10) § 115.726(d)(2) § 115.726(d)(3) § 115.726(d)(4) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	[G]§ 115.726(a)(2)
X-901	CD	60A-01	Opacity	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(i) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4)	None	None
X-901	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)	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

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(e)				
X-901	CD	60A-03	Opacity	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(ii) § 60.18(c)(4)(ii) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4)	None	None
X-901	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)(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
X-901	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
X-901	CD	63A-03	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
X-901	EU	60A-01-	112(B)	40 CFR Part 63,	[G]§ 63.670	Visible emissions. The	[G]§ 63.670	[G]§ 63.2525(m)	§ 63.2520(d)(3)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
		FFFF	HAPS	Subpart FFFF	[G]§ 63.2450(e)(5) [G]§ 63.671 [G]§ 63.2535(m)	owner or operator shall specify the smokeless design capacity of each flare and operate with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours, when regulated material is routed to the flare and the flare vent gas flow rate is less than the smokeless design capacity of the flare. The owner or operator shall monitor for visible emissions from the flare as specified in §63.670(h).	[G]§ 63.671	[G]§ 63.670 [G]§ 63.671	[G]§ 63.2520(e)(11) [G]§ 63.670
X-901	EU	60A-02-FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	[G]§ 63.670 [G]§ 63.2450(e)(5) [G]§ 63.671 [G]§ 63.2535(m)	Visible emissions. The owner or operator shall specify the smokeless design capacity of each flare and operate with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours, when regulated material is routed to the flare and the flare vent gas flow rate is less than the smokeless design capacity of the flare. The owner or operator shall monitor for visible emissions from the flare as specified in §63.670(h).	[G]§ 63.670 [G]§ 63.671	[G]§ 63.2525(m) [G]§ 63.670 [G]§ 63.671	§ 63.2520(d)(3) [G]§ 63.2520(e)(11) [G]§ 63.670
X-901	EU	63A-01-FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	[G]§ 63.670 [G]§ 63.2450(e)(5) [G]§ 63.671	Visible emissions. The owner or operator shall specify the smokeless	[G]§ 63.670 [G]§ 63.671	[G]§ 63.2525(m) [G]§ 63.670 [G]§ 63.671	§ 63.2520(d)(3) [G]§ 63.2520(e)(11) [G]§ 63.670

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]§ 63.2535(m)	design capacity of each flare and operate with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours, when regulated material is routed to the flare and the flare vent gas flow rate is less than the smokeless design capacity of the flare. The owner or operator shall monitor for visible emissions from the flare as specified in §63.670(h).			
X-901	EU	63A-02-FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	[G]§ 63.670 [G]§ 63.2450(e)(5) [G]§ 63.671 [G]§ 63.2535(m)	Visible emissions. The owner or operator shall specify the smokeless design capacity of each flare and operate with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours, when regulated material is routed to the flare and the flare vent gas flow rate is less than the smokeless design capacity of the flare. The owner or operator shall monitor for visible emissions from the flare as specified in §63.670(h).	[G]§ 63.670 [G]§ 63.671	[G]§ 63.2525(m) [G]§ 63.670 [G]§ 63.671	§ 63.2520(d)(3) [G]§ 63.2520(e)(11) [G]§ 63.670
X-901-VNT	EP	R5722-01	Highly Reactive VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(c)(1) § 115.722(c)(3) § 115.722(d) § 115.722(d)(1) § 115.722(d)(2)	HRVOC emissions at each site located in Harris County that is subject to this division or Division 2 of this subchapter must not exceed	§ 115.725(n)	§ 115.726(d)(1) § 115.726(d)(2) § 115.726(d)(3) § 115.726(d)(4) [G]§ 115.726(h)	§ 115.725(n)

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)
						1,200 pounds of HRVOC per one-hour block period from any flare, vent, pressure relief valve, cooling tower, or any combination.		§ 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	
X-901-VNT	EP	R5121-01	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.122(a)(1) § 115.121(a)(1) § 115.122(a)(1)(B) § 60.18	Vent gas streams affected by §115.121(a)(1) must be controlled properly with a control efficiency of at least 90% or to a volatile organic compound (VOC) concentration of no more than 20 parts per million (ppmv) (on a dry basis corrected to 3.0% oxygen for combustion devices).	[G]§ 115.125 § 115.126(1) § 115.126(1)(B) § 115.126(2) ** See CAM Summary	§ 115.126 § 115.126(1) § 115.126(1)(B) § 115.126(2)	None
X-901-VNT	EP	63FFFF-CPV	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a)-Table 1.1.a.ii § 63.11(b) § 63.2450(b) § 63.2455(a) § 63.2455(b) § 63.2455(b)(1) § 63.982(b) § 63.983(a)(1) § 63.983(a)(2) § 63.983(a)(3) § 63.983(a)(3)(ii) § 63.983(d)(1) § 63.983(d)(1)(i) [G]§ 63.983(d)(2) § 63.983(d)(3) § 63.987(a) § 63.997(b)(1) § 63.997(c)(3)	For each Group 1continuous 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(a)(3) § 63.983(a)(3)(ii) § 63.983(b) [G]§ 63.983(b)(1) [G]§ 63.983(b)(2) [G]§ 63.983(b)(3) [G]§ 63.983(b)(4) [G]§ 63.983(c)(1) § 63.983(c)(2) § 63.983(c)(3) § 63.983(d)(1) § 63.983(d)(1)(ii) § 63.987(c) § 63.997(b) § 63.997(b)(1) § 63.997(c)(2) § 63.997(c)(3) § 63.997(c)(3)(i) § 63.997(c)(3)(ii)	§ 63.2450(f)(2) § 63.2450(f)(2)(i) § 63.2450(f)(2)(ii) § 63.983(a)(3)(ii) § 63.983(b) [G]§ 63.983(d)(2) § 63.987(c) § 63.998(a)(1)(ii) § 63.998(a)(1)(iii)(A) § 63.998(a)(1)(iii)(B) [G]§ 63.998(b)(1) [G]§ 63.998(b)(2) [G]§ 63.998(b)(3) [G]§ 63.998(b)(5) [G]§ 63.998(d)(1) § 63.998(d)(3)(i) § 63.998(d)(3)(ii) § 63.998(d)(5)	§ 63.2450(f)(2)(ii) § 63.2450(q) § 63.997(b)(1) § 63.997(c)(3) § 63.998(a)(1)(iii)(A) [G]§ 63.998(b)(3) [G]§ 63.999(a)(1) § 63.999(b)(5) § 63.999(c)(1) § 63.999(c)(2)(i) § 63.999(c)(2)(iii) § 63.999(c)(3) § 63.999(c)(6) [G]§ 63.999(c)(6)(i) § 63.999(c)(6)(iv) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2)

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)
X-901-VNT	EP	63FFFF-CPV-FFFF	112(B) HAPS	40 CFR Part 63, Subpart FFFF	§ 63.2455(a)-Table 1.1.a.ii § 63.2450(b) [G]§ 63.2450(e)(5) § 63.2455(a) § 63.2455(b) § 63.2455(b)(1) [G]§ 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) § 63.987(a) § 63.997(b)(1) § 63.997(c)(3) [G]§ 63.2535(m)	For each Group 1continuous 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) [G]§ 63.671 § 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) § 63.997(b) § 63.997(b)(1) § 63.997(c)(2) § 63.997(c)(3) § 63.997(c)(3)(i) § 63.997(c)(3)(ii)	§ 63.2450(f)(2) § 63.2450(f)(2)(i) § 63.2450(f)(2)(ii) [G]§ 63.2525(m) § 63.983(b) [G]§ 63.983(d)(2) [G]§ 63.998(b)(1) [G]§ 63.998(b)(2) [G]§ 63.998(b)(3) [G]§ 63.998(b)(5) [G]§ 63.998(d)(1) § 63.998(d)(3)(i) § 63.998(d)(3)(ii) § 63.998(d)(5)	§ 63.2450(f)(2)(ii) § 63.2450(q) § 63.2520(d)(3) [G]§ 63.2520(e)(11) § 63.997(b)(1) § 63.997(c)(3) [G]§ 63.998(b)(3) [G]§ 63.999(a)(1) § 63.999(b)(5) § 63.999(c)(1) § 63.999(c)(2)(i) § 63.999(c)(6) [G]§ 63.999(c)(6)(i) § 63.999(c)(6)(iv) [G]§ 63.999(d)(1) [G]§ 63.999(d)(2)

Additional Monitoring Requirements

CAM Summary

Unit/Group/Process Information	
ID No.: X-901-VNT	
Control Device ID No.: X-901	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-01
Pollutant: VOC	Main Standard: § 115.122(a)(1)
Monitoring Information	
Indicator: Pilot flame	
Minimum Frequency: Continuous	
Averaging Period: N/A	
Deviation Limit: Absence of pilot flame. If all monitoring devices indicate absence of pilot flame, it should be confirmed visually by line of sight or camera feed in the control room. If pilot flame is absent, as indicated by both monitoring devices and visual indication, it shall be considered a deviation.	
CAM Text: Monitor the presence of a flare pilot flame using a thermocouple or 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. Maintain records of events when pilot flame is absent and duration of events. Each monitoring device shall be accurate to within manufacturer's recommendations. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or other written procedures that provide an adequate assurance that the device is calibrated accurately.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: H-602	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 117, Subchapter B	SOP Index No.: R7310-02
Pollutant: CO	Main Standard: § 117.310(c)(1)
Monitoring Information	
Indicator: CO Concentration	
Minimum Frequency: Annually	
Averaging Period: Block one-hour average	
Deviation Limit: Maximum CO concentration shall not exceed 400 ppmv at 3.0% O2 on a one hour block average.	
Periodic Monitoring Text: For boilers or process heaters with a heat input capacity of 10 MMBtu/hr. or greater, you must conduct a tune up annually as specified in 40 CFR 63 Subpart DDDDD, §63.7540(a)(10)(i) (vi) to demonstrate continuous compliance. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. Measurements will be averaged to comprise a one hour block average to demonstrate compliance. Any block one hour average above the concentration limit will be considered a deviation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: TK-405	
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(e)(1)
Monitoring Information	
Indicator: Record of Tank Construction Specifications	
Minimum Frequency: N/A	
Averaging Period: N/A	
Deviation Limit: Not keeping record of tank construction specifications	
Periodic Monitoring Text: Keep a record of tank construction specifications (e.g. engineering drawings) that show a fill pipe that extends from the top of a tank to have a maximum clearance of six inches (15.2 centimeters) from the bottom or, when the tank is loaded from the side, a discharge opening entirely submerged when the pipe used to withdraw liquid from the tank can no longer withdraw liquid in normal operation.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: TK-405	
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(e)(1)
Monitoring Information	
Indicator: Structural Integrity of the Pipe	
Minimum Frequency: Emptied and degassed	
Averaging Period: N/A	
Deviation Limit: Repairs not completed to fill pipe if structural integrity of the fill pipe is in question during inspection when the tank has been emptied and degassed.	
Periodic Monitoring Text: Inspect to determine the structural integrity of the fill pipe and record each time the storage vessel is emptied and degassed to ensure that it continues to meet the specifications in the above requirement. 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.	

Permit Shield

Permit Shield

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

Unit / Group / Process ID No.	Group / Inclusive Units	Regulation	Basis of Determination
1792-50	N/A	30 TAC Chapter 115, Storage of VOCs	Storage vessel with a capacity of <1,000 gallons.
1792-50	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons.
1792-51	N/A	30 TAC Chapter 115, Storage of VOCs	Storage vessel with a capacity of <1,000 gallons.
1792-51	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons.
E-501/502	N/A	40 CFR Part 63, Subpart FFFF	The recirculating heat exchange system is used to cool process fluids that do not contain hazardous air pollutants (HAPs) and therefore contains less than 5 percent by weight of total HAPs.
E-501/502	N/A	40 CFR Part 63, Subpart Q	Cooling tower does not use any chromium-based water treatment.
F05	N/A	40 CFR Part 60, Subpart DDD	Equipment used for storage of raw materials which is excluded from the definition of raw materials preparation section per §60.561.
G-214	N/A	40 CFR Part 63, Subpart VV	Facility does not control air emissions from oil-water and organic-water separator for which another subpart of 40 CFR Part 60, 61 or 63 references.
GRP-1792VNT	1792-15, 1792-16, 1792-17, 1792-18, 1792-23, 1792-35, 1792-36, 1792-37, 1792-38, 1792-39, 1792-40, 1792-4C, 1792-4F, 1792-4G, 1792-4H, 1792-4J, RAILCAR	40 CFR Part 63, Subpart FFFF	The gas streams do not contain greater than 0.005 weight percent total HAP and therefore do not meet the definition of continuous process vents.
GRP-1792VNT1	1792-21, 1792-22, V-322, V-323, V-331, V-332, V-333, V-334, V-335, V-	40 CFR Part 63, Subpart FFFF	The gas streams do not contain greater than 0.005 weight percent total HAP and therefore do

Permit Shield

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

Unit / Group / Process ID No.	Group / Inclusive Units	Regulation	Basis of Determination
	336, V-345, V-346, V-347, V-348, V-349, V-384		not meet the definition of continuous process vents.
H-3030	N/A	30 TAC Chapter 117, Subchapter B	Incinerator with heat capacity less than 40 MMBtu/hr.
H-3030	N/A	40 CFR Part 63, Subpart DDDDD	Not a boiler or process heater as defined in § 63.7575.
LAPROOMDG1	N/A	30 TAC Chapter 115, Degreasing Processes	Remote reservoir cold cleaner that uses a solvent with a TVP less than 0.6 psia at 100ºF with a drain area less than 16 in2 and the waste solvent is disposed in an enclosed container.
LAPROOMDG2	N/A	30 TAC Chapter 115, Degreasing Processes	Remote reservoir cold cleaner that uses a solvent with a TVP less than 0.6 psia at 100ºF with a drain area less than 16 in2 and the waste solvent is disposed in an enclosed container.
MECHSHOPDG	N/A	30 TAC Chapter 115, Degreasing Processes	Remote reservoir cold cleaner that uses a solvent with a TVP less than 0.6 psia at 100ºF with a drain area less than 16 in2 and the waste solvent is disposed in an enclosed container.
P-930	N/A	40 CFR Part 60, Subpart IIII	The stationary CI ICE has not been modified or reconstructed after July 11, 2005.
PEUSHOPDG1	N/A	30 TAC Chapter 115, Degreasing Processes	Remote reservoir cold cleaner that uses a solvent with a TVP less than 0.6 psia at 100ºF with a drain area less than 16 in2 and the waste solvent is disposed in an enclosed container.
PEUSHOPDG2	N/A	30 TAC Chapter 115, Degreasing Processes	Remote reservoir cold cleaner that uses a solvent with a TVP less than 0.6 psia at 100ºF with a drain area less than 16 in2 and the waste solvent is disposed in an enclosed container.

Permit Shield

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

Unit / Group / Process ID No.	Group / Inclusive Units	Regulation	Basis of Determination
PROPE1792(1-4)	N/A	40 CFR Part 60, Subpart DDD	The facility was not constructed, modified, or reconstructed after 9/30/87.
ROX-1	N/A	30 TAC Chapter 117, Subchapter B	Incinerator with a heating capacity less than 40 MMBTU/hr.
ROX-1	N/A	40 CFR Part 63, Subpart DDDDD	Not a boiler or process heater as defined in § 63.7575.
TK-401	N/A	40 CFR Part 60, Subpart Kb	Storage vessel with a capacity of less than 75 cubic meters.
TK-402	N/A	40 CFR Part 60, Subpart Kb	Storage vessel with a capacity of less than 75 cubic meters.
TK-405	N/A	40 CFR Part 60, Subpart Kb	Storage vessel with a capacity of less than 75 cubic meters.
TK-902	N/A	40 CFR Part 60, Subpart Kb	Storage vessel with a capacity of less than 75 cubic meters.
TK-903	N/A	40 CFR Part 60, Subpart Kb	Storage vessel with a capacity of less than 75 cubic meters.
TK-904	N/A	40 CFR Part 60, Subpart Kb	Maximum true vapor pressure of the storage vessel is less than 3.5 kPa.
V-406	N/A	40 CFR Part 60, Subpart Kb	Pressure vessel designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
V-407	N/A	40 CFR Part 60, Subpart Kb	Pressure vessel designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.

Permit Shield

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

Unit / Group / Process ID No.	Group / Inclusive Units	Regulation	Basis of Determination
V-430	N/A	40 CFR Part 63, Subpart FFFF	Ancillary refrigeration system in not considered a process or part of any process (as defined in 63.2550); not a part of the MCPU.
V-901	N/A	40 CFR Part 60, Subpart Kb	Pressure vessel designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
V-902	N/A	40 CFR Part 60, Subpart Kb	Storage vessel with a capacity of less than 75 cubic meters.
V-903	N/A	40 CFR Part 60, Subpart Kb	Storage vessel with a capacity of less than 75 cubic meters.
V-905	N/A	30 TAC Chapter 115, Storage of VOCs	Storage vessel with capacity of less than 1,000 gallons.
V-905	N/A	40 CFR Part 60, Subpart Kb	Storage vessel with a capacity of less than 75 cubic meters.
V-911	N/A	40 CFR Part 60, Subpart Kb	Storage vessel with a capacity of less than 75 cubic meters.
V-912	N/A	40 CFR Part 60, Subpart Kb	Maximum true vapor pressure of the storage vessel is less than 3.5 kPa.
V-930	N/A	30 TAC Chapter 115, Storage of VOCs	Storage vessel with a capacity of less than 1,000 gallons.
V-930	N/A	40 CFR Part 60, Subpart Kb	Storage vessel with a capacity of less than 75 cubic meters.

New Source Review Authorization References

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.

Nonattainment (NA) Permits	
NA Permit No.: N224	Issuance Date: 09/28/2023
NA Permit No.: N294	Issuance Date: 01/10/2024
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.: 2462C	Issuance Date: 01/10/2024
Authorization No.: 83791	Issuance Date: 09/28/2023
Authorization No.: 135086	Issuance Date: 09/28/2023
Authorization No.: 158288	Issuance Date: 09/18/2019
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106	Version No./Date: 08/30/1988
Number: 106.122	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.393	Version No./Date: 09/04/2000
Number: 106.412	Version No./Date: 09/04/2000
Number: 106.452	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 07/08/1998
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.473	Version No./Date: 03/14/1997
Number: 106.473	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.512	Version No./Date: 09/04/2000
Number: 106.532	Version No./Date: 09/04/2000

New Source Review Authorization References by Emissions Unit

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

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
1792-15	F-394 FILTER VENT	2462C, N294
1792-16	F-395 FILTER VENT	2462C, N294
1792-17	F-396 FILTER VENT	2462C, N294
1792-18	F-397 FILTER VENT	2462C, N294
1792-21	F-312 FILTER VENT	2462C, N294
1792-22	F-315 FILTER VENT	2462C, N294
1792-23	F-320 FILTER VENT	2462C, N294
1792-35	B-112, LINE 1 PELLET DRYER	2462C, N294
1792-36	B-113, LINE2 PELLET DRYER	2462C, N294
1792-37	B-114, LINE 3 PELLET DRYER	2462C, N294
1792-38	B-115, LINE 4 PELLET DRYER	2462C, N294
1792-39	B-1506, LINE 5 PELLET DRYER	2462C, N294
1792-40	B-1606, LINE 6 PELLET DRYER	2462C, N294
1792-4C	F-376 FILTER VENT	2462C, N294
1792-4F	F-365 FILTER VENT	2462C, N294
1792-4G	F-366 FILTER VENT	2462C, N294
1792-4H	F-367 FILTER VENT	2462C, N294
1792-4J	F-356 FILTER VENT	2462C, N294
1792-50	V-419, DE-ETHANIZER BLOWDOWN DRUM	2462C, N294
1792-51	V-420, DEPROPANIZER BLOWDOWN DRUM	2462C, N294
CATLOAD	SOLTROL/CATALYST LOADING	106.472/09/04/2000, 106.473/09/04/2000

New Source Review Authorization References by Emissions Unit

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

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
E-501/502	COOLING TOWER E501/502	2462C, N294
F-75	PROCESS FUGITIVES	2462C, N294, 106.261/11/01/2003
F05	P-1792, CATALYST MIX & HOLDING TANKS	2462C, N294
G-214	API OIL/WATER SEPARATOR	2462C, N294
H-3030	CATALYST INCINERATOR	2462C, N294
H-602	HOT OIL HEATER	2462C, N294
LAPROOMDG1	PARTS WASHER	106.454/07/08/1998
LAPROOMDG2	PARTS WASHER	106.454/07/08/1998
LOAD	LOADING OPERATIONS	2462C, N294, 106.472/09/04/2000, 106.473/09/04/2000
MECHSHOPDG	PARTS WASHER	106.454/07/08/1998
MG-901	DIESEL ENGINE	106.511/09/04/2000
P-930	STORM WATER PUMP ENGINE	2462C, N294
PEUSHOPDG1	PARTS WASHER	106.454/07/08/1998
PEUSHOPDG2	PARTS WASHER	106.454/07/08/1998
PROPE1792	POLYETHYLENE UNIT PEU 1792 MANUFACTURING PROCESS	2462C, N294
PROPE1792(1-4)	POLYTHYLENE UNIT PEU 1792 EMISSIONS 1-4	2462C, N294
PROPE1792(5-6)	POLYETHYLENE UNIT PEU 1792 PROCESS LINE 5-6	2462C, N294
RAILCAR	RAILCAR LOADOUT	2462C, N294
ROX-1	PEU 1792 RTO	2462C, N294
SUMP	SIT YARD SUMP	106.532/09/04/2000

New Source Review Authorization References by Emissions Unit

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

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
TK-401	SOLVENT TANK	2462C, N294
TK-402	SOLVENT TANK	2462C, N294
TK-405	METHANOL TANK	2462C, N294
TK-902	TK-902	2462C, N294
TK-903	API SKIM TANK	2462C, N294
TK-904	STORMWATER HOLDING TANK	2462C, N294
TOTE	SIT YARD OIL STORAGE	106.472/09/04/2000
UNLOAD	UNLOADING OPERATIONS	2462C, N294, 106.472/09/04/2000, 106.473/09/04/2000
V-322	STORAGE SILO VENT	2462C, N294
V-323	STORAGE SILO VENT	2462C, N294
V-331	MASTERBATCH VENT	2462C, N294
V-332	MASTERBATCH VENT	2462C, N294
V-333	STORAGE SILO VENT	2462C, N294
V-334	STORAGE SILO VENT	2462C, N294
V-335	STORAGE SILO VENT	2462C, N294
V-336	STORAGE SILO VENT	2462C, N294
V-345	STORAGE SILO VENT	2462C, N294
V-346	STORAGE SILO VENT	2462C, N294
V-347	STORAGE SILO VENT	2462C, N294
V-348	STORAGE SILO VENT	2462C, N294

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**
V-349	STORAGE SILO VENT	2462C, N294
V-384	STORAGE SILO VENT	2462C, N294
V-406	PRESSURIZED VESSEL V-406	2462C, N294
V-407	PRESSURIZED VESSEL V-407	2462C, N294
V-430	CHILLED WATER VESSEL	2462C, N294
V-901	PRESSURIZED VESSEL V-901	2462C, N294
V-902	LUBE OIL STORAGE TANK	106.472/09/04/2000
V-903	LUBE OIL STORAGE TANK	106.472/09/04/2000
V-905	DIESEL FUEL TANK	2462C, N294
V-911	LUBE OIL STORAGE TANK	106.472/09/04/2000
V-912	SOLVENT STORAGE DRUM	2462C, N294
V-930	DIESEL FUEL TANK	2462C, N294
X-901	FLARE	2462C, 135086, 158288, N224, N294
X-901-VNT	VENTS TO FLARE X-901 FROM PEU-1792	2462C, N294

**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

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_2S ..... 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
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

Permit Numbers: 2462C and N294 (Before Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
F-75 (5)	Process Fugitives	VOC	13.50	59.12	4, 5, 30, 31, 32	4, 5, 30, 31, 32, 36	4, 5
F-04 (5)	Pellet Losses	VOC	52.30	78.30	4, 5, 7, 8, 35	4, 5, 7, 8, 36	4, 5, 8
F-05	Catalyst Mix and Holding Tanks	VOC	1.89	0.20	20	20	
1592-42	Holding Pond	VOC	0.01	0.01	20	20	
25	F-355 Bagfilter	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-4C	F-376 Baghouse	PM	0.02	0.05	27	27	
		PM_{10}	0.02	0.05			
		$PM_{2.5}$	0.02	0.05			
1792-4F	F-365 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-4G	F-366 Baghouse	PM	0.01	0.02	27	27	

Major NSR Summary Table

Permit Numbers: 2462C and N294 (Before Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-4H	F-367 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-4J	F-356 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-15	F-394 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-16	F-395 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-17	F-396 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			

Major NSR Summary Table

Permit Numbers: 2462C and N294 (Before Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
		$PM_{2.5}$	0.01	0.02			
1792-18	F-397 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-21	F-312 Bagfilter	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-22	F-315 Bagfilter	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-23	F-320 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
26	H-602 Hot Oil Heater	CO	1.80	6.50	5	5	5
		NO_X	1.32	2.87			
		PM	0.16	0.59			

Major NSR Summary Table

Permit Numbers: 2462C and N294 (Before Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Special Condition/Application Information**	**Special Condition/Application Information**	**Special Condition/Application Information**
		PM_{10}	0.16	0.59			
		$PM_{2.5}$	0.16	0.59			
		SO_2	0.01	0.05			
		VOC	0.12	0.43			
45	X-901 Flare - Normal Operation and MSS combined	CO	83.14	54.15	4, 5, 9, 37, 39, 40, 42, 43, 44,45, 46, 47, 48, 49, 51, 53	4, 5, 9, 36, 37, 40, 42, 43, 45, 46, 47, 48, 51, 54	4, 5, 9, 37, 48
		NO_X	16.18	9.43			
		SO_2	0.45	0.84			
		VOC	92.11	19.81			
1792-4B	H-3030 Catalytic Oxidizer	CO	5.55	24.30	4, 5, 10, 11	4, 5, 10, 11, 36	4, 5
		NO_X	1.11	4.86			
		PM	0.09	0.12			
		PM_{10}	0.09	0.12			
		$PM_{2.5}$	0.09	0.12			
		SO_2	0.01	0.03			
		VOC	3.12	9.85			
1792-4M (8)	Downtime of H-3030	VOC	35.00	3.36	4, 5, 33	4, 5, 33	4, 5

Major NSR Summary Table

Permit Numbers: 2462C and N294 (Before Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
1792-35	Line 1 Pellet Dryer	VOC	0.68	2.99	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
1792-36	Line 2 Pellet Dryer	VOC	0.68	2.99	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
1792-37	Line 3 Pellet Dryer	VOC	0.68	2.99	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
1792-38	Line 4 Pellet Dryer	VOC	0.68	2.99	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
1792-39	Line 5 Pellet Dryer	VOC	0.89	3.88	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
1792-40	Line 6 Pellet Dryer	VOC	0.89	3.88	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
1792-43	P-930 Stormwater Pump Engine	CO	1.50	0.06	5	5, 28, 36	5
		NO_X	6.98	0.29			
		PM	0.50	0.02			
		PM_{10}	0.50	0.02			
		$PM_{2.5}$	0.50	0.02			
		SO_2	0.46	0.02			
		VOC	0.56	0.02			
1792-76	Cooling Tower	PM	0.38	1.66	5, 29	5, 29, 36	5
		PM_{10}	0.38	1.66			
		$PM_{2.5}$	0.38	1.66			

Major NSR Summary Table

Permit Numbers: 2462C and N294 (Before Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
		VOC	1.58	1.65			
LL03	Slop Oil Loading	VOC	3.16	0.08	4, 5, 24, 25	4, 5, 24, 25, 26	4, 5
03	Spent Solvent Tank	VOC	3.06	0.09	20	20	
28	Solvent Rundown Tank	VOC	3.24	0.04	20	20	
29	Solvent Holding Tank	VOC	3.24	0.08	20	20	
30	Methanol Tank	VOC	17.29	0.26	20	20	
1792-11	Solvent Storage Tank	VOC	3.24	0.18	20	20	
1792-47	API Skim Tank	VOC	1.01	0.20	20	20	
31	Chilled Water Methanol	VOC	1.44	0.20	20	20	
1792-42	Diesel Fuel Tank	VOC	0.29	0.02	20	20	
1792-44	Diesel Fuel Tank	VOC	0.29	0.02	20	20	
1792-45	Stormwater Holding Tank	VOC	0.14	0.02	20	20	
1792-46	API Separator	VOC	0.58	2.54	20	20	
1792-48	Stormwater Holding Pond	VOC	0.01	0.01	20	20	
1792-50	De-Ethanizer Blowdown	VOC	1.62	0.59	20	20	

Major NSR Summary Table

Permit Numbers: 2462C and N294 (Before Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
1792-51	De-Propanizer Blowdown Drum	VOC	1.62	0.59	20	20	

(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
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
(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) Maintenance Operations shall be limited to 480 hours per 12 month rolling period.
(7) The MAERT limits are applicable only to the pre-expansion configuration. After completion of construction and commencement of all expanded line operations, the holder of this permit shall submit a permit action to remove the MAERT limits through the appropriate permitting mechanism as required in Special Condition No. 3.

Major NSR Summary Table

Permit Numbers: 2462C and N294 (After Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Special Condition/ Application Information**	**Special Condition/ Application Information**	**Special Condition/ Application Information**
F-75 (5)	Process Fugitives	VOC	14.18	62.09	4, 5, 30, 31, 32	4, 5, 30, 31, 32, 36	4, 5
F-05	Catalyst Mix and Holding Tanks	VOC	1.89	0.35	20	20	
1592-42	Holding Pond	VOC	0.01	0.01	20	20	
1792-4C	F-376 Baghouse	PM	0.02	0.05	27	27	
		PM_{10}	0.02	0.05			
		$PM_{2.5}$	0.02	0.05			
1792-4F	F-365 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-4G	F-366 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			

Major NSR Summary Table

Permit Numbers: 2462C and N294 (After Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Special Condition/ Application Information**	**Special Condition/ Application Information**	**Special Condition/ Application Information**
1792-4H	F-367 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-4J	F-356 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-15	F-394 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-16	F-395 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-17	F-396 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-18	F-397 Baghouse	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			

Major NSR Summary Table

Permit Numbers: 2462C and N294 (After Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Special Condition/ Application Information**	**Special Condition/ Application Information**	**Special Condition/ Application Information**
		$PM_{2.5}$	0.01	0.02			
1792-21	F-312 Bagfilter	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-22	F-315 Bagfilter	PM	0.01	0.02	27	27	
		PM_{10}	0.01	0.02			
		$PM_{2.5}$	0.01	0.02			
1792-23	F-320 Baghouse	PM	0.01	0.01	27	27	
		PM_{10}	0.01	0.01			
		$PM_{2.5}$	0.01	0.01			
26	H-602 Hot Oil Heater	CO	1.80	6.50	5	5	5
		NO_X	1.32	2.87			
		PM	0.16	0.59			
		PM_{10}	0.16	0.59			
		$PM_{2.5}$	0.16	0.59			
		SO_2	0.01	0.05			
		VOC	0.12	0.43			

Major NSR Summary Table

Permit Numbers: 2462C and N294 (After Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Special Condition/ Application Information**	**Special Condition/ Application Information**	**Special Condition/ Application Information**
45	X-901 Flare - Normal Operation and MSS combined	CO	83.14	54.15	4, 5, 9, 37, 39, 40, 42, 43, 44,45, 46, 47, 48, 49, 51, 53	4, 5, 9, 36, 37, 40, 42, 43, 45, 46, 47, 48, 51, 54	4, 5, 9, 37, 48
		NO_X	16.18	9.43			
		SO_2	0.45	0.84			
		VOC	92.11	19.81			
ROX-1	Regenerative Thermal Oxidizer (RTO)	CO	2.50	6.57	4, 5, 8, 4, 15, 16, 17	4, 5, 8, 13, 14, 15, 16, 17, 36	4, 5, 8, 16, 17
		NO_X	1.13	2.96			
		PM	0.21	0.55			
		PM_{10}	0.21	0.55			
		$PM_{2.5}$	0.21	0.55			
		SO_2	0.38	1.00			
		VOC	1.00	2.70			
ROX-DT (6)	Downtime of ROX-1	VOC	85.00	3.38	4, 5, 8, 15	4, 5, 8, 15, 36	4, 5, 8
		PM	0.03	<0.01			
		PM_{10}	0.03	<0.01			
		$PM_{2.5}$	0.03	<0.01			
F-04	Pellet Losses	VOC	10.00	-	4, 5, 7, 8, 35	4, 5, 7, 8, 36	4, 5, 8
1792-35	Line 1 Pellet Dryer	VOC	1.08	-	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18

Major NSR Summary Table

Permit Numbers: 2462C and N294 (After Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Special Condition/ Application Information**	**Special Condition/ Application Information**	**Special Condition/ Application Information**
1792-36	Line 2 Pellet Dryer	VOC	1.36	-	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
1792-37	Line 3 Pellet Dryer	VOC	0.95	-	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
1792-38	Line 4 Pellet Dryer	VOC	0.86	-	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
1792-39	Line 5 Pellet Dryer	VOC	1.36	-	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
1792-40	Line 6 Pellet Dryer	VOC	1.58	-	4, 5, 7, 8, 18	4, 5, 7, 8, 18, 36	4, 5, 8, 18
PELLET	EPNs F-04, and 1792-35 through 1792-40	VOC	-	56.04	4, 5, 7, 8, 35	4, 5, 7, 8, 36	4, 5, 8
1792-43	P-930 Stormwater Pump Engine	CO	1.50	0.06	5	5, 28, 36	5
		NO_X	6.98	0.29			
		PM	0.50	0.02			
		PM_{10}	0.50	0.02			
		$PM_{2.5}$	0.50	0.02			
		SO_2	0.46	0.02			
		VOC	0.56	0.02			
1792-76	Cooling Tower	PM	0.38	1.44	5, 29	5, 29, 36	5
		PM_{10}	0.38	1.44			
		$PM_{2.5}$	0.38	1.44			

Major NSR Summary Table

Permit Numbers: 2462C and N294 (After Production Expansion) (7)					Issuance Date: January 10, 2024		
Emission Point No. (1)	**Source Name (2)**	**Air Contaminant Name (3)**	**Emission Rates**		**Monitoring and Testing Requirements**	**Recordkeeping Requirements**	**Reporting Requirements**
			lbs/hour	**TPY (4)**	**Special Condition/ Application Information**	**Special Condition/ Application Information**	**Special Condition/ Application Information**
		VOC	1.58	2.96			
LL03	Slop Oil Loading	VOC	3.85	0.20	4, 24, 25	4, 24, 25, 26	4
03	Spent Solvent Tank	VOC	3.06	0.11	20	20	
28	Solvent Rundown Tank	VOC	3.24	0.06	20	20	
29	Solvent Holding Tank	VOC	3.24	0.08	20	20	
30	Methanol Tank	VOC	17.29	0.26	20	20	
1792-11	Solvent Storage Tank	VOC	3.24	0.18	20	20	
1792-47	API Skim Tank	VOC	1.01	0.20	20	20	
31	Chilled Water Methanol	VOC	1.44	0.20	20	20	
1792-42	Diesel Fuel Tank	VOC	0.29	0.02	20	20	
1792-44	Diesel Fuel Tank	VOC	0.29	0.02	20	20	
1792-45	Stormwater Holding Tank	VOC	0.14	0.02	20	20	
1792-46	API Separator	VOC	0.58	2.54	20	20	
1792-48	Stormwater Holding Pond	VOC	0.01	0.01	20	20	
1792-50	De-Ethanizer Blowdown Drum	VOC	1.62	0.59	20	20	
1792-51	De-Propanizer Blowdown Drum	VOC	1.62	0.59	20	20	

(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
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
(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) Regenerative Thermal Oxidizer Downtime, EPN ROX-DT, as described in Special Condition No. 13, is limited to 100 hours per 12 month rolling period.
(7) The MAERT limits are applicable to the production expansion of the Polyethylene (PEU) Unit 1792 that was represented in the permit amendment application, PI-1 dated July 1, 2015 (TCEQ Project No. 238272) and subsequent updates, and the as-built amendment application, PI-1 dated March 31, 2020 (TCEQ Project No. 314315) and subsequent updates.

Major NSR Summary Table

Permit Numbers: 135086 and N224					Issuance Date: September 28, 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
1796-10A 1798-22 1799-20 45 110 129	Flare Group (6) FS-541 Z-1101 FS-9006 X-901 Z-101 Z-251	VOC	135.62	34.33	2, 3, 4, 6, 7	2, 3, 4, 6, 7, 8	3, 4
		NOx	16.04	4.06			
		CO	103.91	26.30			

(1) Emission point identification - either specific equipment designation or emission point number (EPN) from plot plan.
(2) Specific point source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
(4) Compliance with hourly emission limits (pounds per hour) is in addition to emissions authorized by Permit Nos. 2462C, 19027, 46305, and 37063 for the listed EPNs.
(5) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period and is in addition to emissions authorized by Permit Nos. 2462C, 19027, 46305, and 37063 for the listed EPNs
(6) Purge gas may be vented to a combination of one or more flares in the designated group as described in Special Conditions Attachment B and permit application representations.

Texas Commission on Environmental Quality
Air Quality Permit

A Permit Is Hereby Issued To
Chevron Phillips Chemical Company LP
Authorizing the Construction and Operation of
Cedar Bayou Chemical Plant
Located at **Baytown, Harris County, Texas**
Latitude 29.8175 Longitude -94.933888

Permits: 2462C and N294

Revision Date: January 10, 2024

Expiration Date: September 27, 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)]

8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] [1]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. [1]

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

Common Acronyms in Air Permits

°C = Temperature in degrees Celsius
°F = Temperature in degrees Fahrenheit
°K = Temperature in degrees Kelvin
µg = microgram
$\mu g/m^3$ = 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
H_2CO = formaldehyde
H_2S = hydrogen sulfide
H_2SO_4 = 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 H_2O = 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
m^3 = 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 PM_{10} and $PM_{2.5}$, as represented
$PM_{2.5}$ = particulate matter equal to or less than 2.5 microns in diameter
PM_{10} = 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
SO_2 = 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 2462C and N294

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT), and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this permit. The annual rates are based on any consecutive 12-month period unless otherwise noted.

2. Upon the startup of the modified facilities and expanded operation as described in Special Condition. No. 3, non-fugitive atmospheric 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 exception of rupture discs and relief valves listed in Attachment B to this permit.

3. This permit authorizes modification and expansion of PEU-1792 as described within the permit amendment application, PI-1 dated July 1, 2015 (TCEQ Project No. 238272) and subsequent updates, and the as-built amendment application, PI-1 dated March 31, 2020 (TCEQ Project No. 314315) and subsequent updates. The construction of the project may occur in phases. Each production line constructed to replace an existing production line(s) is a phase. Accordingly, the use of the term "expanded operations" in this permit refers to the phase of the project that has been completed. Commencement of expanded operations is considered to be when an individual line within the unit is modified and placed into service. Within 12 months after completion of construction and commencement of all expanded line operations, the holder of this permit shall submit a permit action to remove or modify Special Conditions and MAERT limits that are applicable only to the pre-expansion configuration through the appropriate permitting mechanism. The action shall provide an explanation for each proposed change. **(08/2020)**

   Expanded operations at any individual line may not commence until the storage silos designated for control and associated with that line are routed to the Regenerative Thermal Oxidizer (RTO) as required in Special Condition No. 13.

Federal Applicability

4. Upon the startup of the modified facilities and expanded operation as described in Special Condition No. 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.

5. Upon the startup of the modified facilities and expanded operation as described in Special Condition No. 3, 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: **(08/2020)**

   A. Subpart A, General Provisions.

   B. Subpart FFFF, National Emission Standard for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.

   C. Subpart ZZZZ, National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

   D. Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.

Production

6. Fuel gas combusted at this facility shall be sweet natural gas containing no more than 5 grains of total sulfur per 100 dry standard cubic feet.

7. Prior to the startup of the modified facilities and expanded operation as described in Special Condition No. 3, the total polyethylene production for Line Nos. 1, 2, 3, 4, 5, and 6 shall not exceed 650 million pounds per year, based on a rolling 12-month period. Hourly production for Line Nos. 1-6 shall not exceed 85,000 pounds.

   The ethylene emissions to the atmosphere from the polyethylene pellets, after the extruder and before final loading for Line Nos. 1-6 shall not exceed 78.3 tpy from Emission Point No. (EPN) F-04. The net emissions attributed to Line Nos. 1-6 shall be calculated using the beverage can method or headspace analysis minus the proportion of emissions from Line Nos. 1-6 that are destroyed by control devices. **(09/2023)**

8. Upon the startup of the modified facilities and commencement of expanded operation as described in Special Condition No. 3, the facility will produce polymers at a rate not to exceed the hourly throughput constraints contained in the Table 2 submitted with the permit amendment application, PI-1 dated July 1, 2015 (TCEQ Project No. 238272) and subsequent updates, and the as-built amendment application, PI-1 dated March 31, 2020 (TCEQ Project No. 314315) and subsequent updates. Production records shall be updated monthly with the pounds of polymer produced during the previous month and rolling 12-months to date. **(08/2020)**

   Total VOC emitted to the atmosphere after the extruder through product loadout includes the Pellet Cap (EPN PELLET), RTO (EPN ROX-1), RTO downtime (EPN ROX-DT), shall not exceed 155.3 pounds of VOC/million (MM) pounds of low density polyethylene pellets on a rolling 12-month basis. **(08/2020)**

   Ongoing compliance with VOC emission limits for the polyethylene pellet handling systems between each extruder and product loadout (inclusive) will be determined monthly based on a summation of Paragraphs A and B of this condition.

A. Calculated emissions based on stack test results for EPN 1792-35, 1792-36, 1792-37, 1792-38, 1792-39, and 1792-40 plus calculated VOC emissions from EPNs ROX-1 and ROX-DT. **(08/2020)**

B. Polymer handling pellet fugitive emission losses (EPN F-04) shall be calculated by average head space concentration multiplied by monthly production. VOC sampling for polymer handling pellet fugitive losses (F-04) testing shall occur at the outlets of the blending silos M-305 and M-306 for Line 5, the outlets of the blending silos M-307 and M-308 for Line 6, and the outlets of the blending silos M-309 and M-310 for Lines 1-4. If a line is not in service for the entire month, sampling for that month is not required. The VOC head space test method shall be capable of determining the total residual concentrations of VOC species having 12 or fewer carbon atoms. The permit holder shall submit a proposed test method for approval to the Executive Director or to the Air Section Manager for the Regional Office within 180 days of issuance of the permit amendment application, PI-1 dated July 1, 2015 and as updated (TCEQ Project No. 238272). Upon approval, a copy of the approved test method shall be retained at the plant site and attached to a copy of the permit. Monthly average sampling will be based on one sample per line per month. **(08/21)**

C. Polymer production rates and monitoring records will be maintained at the plant site and shall include (but are not limited to):

(1) Day and time of sample.

(2) Actual plant production rate at the time of sampling and monthly production rate.

(3) Product number.

Flare (EPN 45)

9. The flare X-901 (EPN 45) shall be designed and operated in accordance with the following requirements:

A. The flare system shall be designed such that the combined assist natural gas and waste stream to the flare meets the Title 40 Code of Federal Regulations § 60.18 (40 CFR § 60.18) specifications of minimum heating value and maximum tip velocity at all times when emissions may be vented to it.

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 Texas Commission on Environmental Quality (TCEQ) Regional Office to demonstrate compliance with these requirements.

B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple, 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. Upon the startup of the modified facilities and first production line with expanded operation as described in Special Condition No. 3, the permit holder shall install a continuous flow monitor

and composition analyzer system that provide a record of the vent stream flow and composition to the flare. The flow monitoring system shall be capable of measuring the entire gas stream flow to the flare (i.e., all vent gas and supplemental fuel sources) and may consist of one or more flow measurements at one or more header locations. The heating value monitoring system shall be capable of determining the flow-weighted heating value for the entire gas stream to the flare (i.e., all vent gas and supplemental fuel sources) and may consist of one or more sampling locations at one or more header locations. Grab samples taken at least annual or a reference heating value may be used for purchased natural gas in lieu of direct measurement. The flow monitor sensor(s) and analyzer(s) sample point(s) shall be installed in the vent stream(s) 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. **(12/2020)**

The monitors shall be calibrated or have a calibration check performed on an annual basis to meet the accuracy specifications in 30 TAC § 115.725(d)(1).

Calibration of the analyzer for the HRVOC constituents and the other constituents currently monitored to determine net heating value and molecular weight pursuant to 30 TAC § 115.725(d)(2) 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 calendar year as specified in 30 TAC 115.725(d)(3). 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 within the permit amendment application, PI-1 dated July 1, 2015 and as updated (TCEQ Project No. 238272) or TCEQ Guidance Document factors as appropriate for flare X-901 (EPN 45).

E. The flare (EPN 45) shall operate in accordance with Special Condition 9, Special Conditions 39 through 54, Attachment C of these Special Conditions, and 40 CFR Part 63, Subpart FFFF “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.” Special Conditions 39 through 54 and Attachment C include the requirements established in the Consent Decree issued by the U.S. EPA, effective March 9, 2022 and identified as Civil Case 4:22-cv-00737. If there is a conflict in compliance with Special Condition 9, Special Conditions 39 through 54, Attachment C, and MACT FFFF, then the most stringent requirement shall apply. **(09/2023)**

F. The following requirements apply to capture systems for flare X-901, 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.

(3) The capture system shall not have a bypass, or if there is a bypass for the capture system, comply with either of the following requirements:

(a) 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

(b) Once a month, inspect the valves, verifying the position of the valves and the condition of the car seals that prevent flow out the bypass.

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.

G. 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.

Catalytic Oxidizer (EPN 1792-4B)

10. The Catalytic Oxidizer (EPN 1792-4B) shall have no visible emissions.

11. A continuous emissions monitoring system (CEMS) shall be installed and operated to monitor and record emissions of volatile organic compounds (VOC) in the exhaust stack of the Catalytic Oxidizer (EPN 1792-4B).

Quality assured (or valid) data must be generated when the oxidizer is operating except during performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the oxidizer operated over the previous rolling 12-month period.

12. Prior to expanded operations as described in Special Condition No. 3, during normal operation, all highly reactive (HRVOC) and/or other organic compound waste gas from existing Storage Bins (V-379, V-380, V-381, and V-382) and from four of the six Blend Silos (M-305, M-306, M-307, and M-308) shall be routed to the Catalytic Oxidizer (EPN 1792-4B).

The Catalytic Oxidizer (EPN 1792-4B) shall be operated with no less than 95.0 percent efficiency in disposing of the HRVOC from the storage bins. Vent gases from these storage bins shall be routed to a catalytic oxidizer during normal operation. Planned start-up, shutdown, and maintenance operations and emissions are not authorized by this special condition.

Regenerative Thermal Oxidizer (RTO, EPN ROX-1)

13. Upon startup of any modified facilities and expanded operations as described in Special Condition No. 3, the associated vent streams from the controlled storage silos shall be routed to the RTO (EPN ROX-1) which shall maintain the VOC concentration in the exhaust gas less than 10 ppmv on a dry basis, or achieve a VOC destruction efficiency no less than 99 percent. **(08/2020)**

    Emissions to the atmosphere may occur during periods of RTO downtime (EPN ROX-DT) when the firebox exit temperature in Special Condition 14 is not met. The period during which the emissions from EPN ROX-DT shall occur shall not exceed 100 hours on a rolling 12-month basis. Records shall be maintained for at least five years documenting ROX-DT emissions and duration of each occurrence. **(08/2020)**

14. The RTO firebox exit temperature shall be maintained at not less than 1400°F on a six-minute average while waste gas is being fed into the oxidizer prior to initial stack testing. After the initial stack test has been completed, the six minute average temperature shall be equal to, or greater than the respective hourly average (established as the average hourly temperature based on all valid sample runs) maintained during the most recent satisfactory stack testing required by Special Condition No. 17.

    Records shall be maintained for at least five years documenting RTO start-up, shutdown, and duration of each occurrence.

15. The RTO firebox exit temperature shall be continuously monitored and recorded when waste gas is directed to the RTO. The temperature measurement device shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5ºC.

    Quality assured (or valid) data must be generated when the RTO is operating as required by Special Condition No. 13 except during calibration. 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 Regenerative Thermal oxidizer operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. **(08/2020)**

    After expanded operations, this permit authorizes uncontrolled emissions from EPN ROX-DT (as listed in Attachment A to this permit) due to maintenance of the RTO when production is occurring. Miscellaneous maintenance of the RTO during production shall not exceed 100 hours per year on a rolling 12-month basis (as listed in Attachment A to this permit). Uncontrolled VOC emissions to the atmosphere from EPN ROX-DT due to maintenance of the RTO shall be limited to 85.0 lbs per hour. Emission rates shall be determined using production data and the appropriate emission factors based on the permit amendment application, PI-1 dated March 31, 2020 (TCEQ Project No. 314315) and subsequent updates. Records shall be maintained for at least five years documenting RTO (EPN ROX-DT) emissions and duration of each occurrence. **(08/2020)**

16. The following requirements apply to the capture systems for the RTO.

A. 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

B. 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.

C. The bypass for the control device 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 which prevent flow out of 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.

D. 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.

RTO Initial Determination of Compliance

17. The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the RTO (EPN ROX-1) to demonstrate compliance with the MAERT. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods.

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

A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:

(1) Proposed date for pretest meeting.

(2) Date sampling will occur.

(3) Name of firm conducting sampling.

(4) Type of sampling equipment to be used.

(5) Method or procedure to be used in sampling.

(6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.

(7) Procedure/parameters to be used to determine worst case emissions from maximum operating rates during the sampling period.

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

B. Air contaminants emitted from the RTO (EPN ROX-1) to be tested for include VOC, CO, and NO_x. Additional contaminants to test for may be requested by the appropriate TCEQ Regional Office.

C. Sampling shall occur within 60 days after achieving the maximum operating rate after expanded operation, but no later than 180 days after initial start-up of the facilities (or increase in production, as appropriate) for each completed phase of the project and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.

D. The facility being sampled shall operate at the maximum achievable operating rate with the regenerative thermal oxidizer temperature recorded during stack emission testing. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

During subsequent operations, the permit holder may operate at a short-term operating rate greater than the rate recorded during the last successful test period provided the new rate does not exceed 105% of the maximum achievable operating rate recorded during the test. The permit holder may operate at this operating rate without additional stack test unless otherwise required by the Executive Director.

During subsequent operations, if the maximum production rates are greater than 105% of that recorded during the test period, stack sampling shall be performed at the new operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region. **(08/2020)**

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

One copy to the appropriate TCEQ Regional Office.

One copy to each local air pollution control program.

F. Sampling ports and platform(s) shall be incorporated into the design of EPN ROX-1 according to the specifications set forth in the attachment entitled “Chapter 2, Stack Sampling Facilities” of the TCEQ Sampling Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director.

Dryer Stack Testing

18. After all expanded operations as defined in Special Condition No. 3, the permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of VOC being emitted into the atmosphere from the Pellet Dryers (EPNs 1792-35, 1792-36, 1792-37, 1792-38, 1792-39, and 1792-40) to demonstrate compliance with the MAERT. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and the U.S. EPA Reference Methods. **(08/2020)**

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

    A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:

        (1) Proposed date for pretest meeting.

        (2) Date sampling will occur.

        (3) Name of firm conducting sampling.

        (4) Type of sampling equipment to be used.

        (5) Method or procedure to be used in sampling.

        (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.

        (7) Procedure/parameters to be used to determine worst case emissions from maximum operating rates during the sampling period.

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

    B. Air contaminants emitted from the Pellet Dryers to be tested for include ethylene, propylene, and total VOC. Additional contaminants to test for may be requested by the appropriate TCEQ Regional Office.

    C. Sampling shall occur within 60 days after achieving the maximum operating rate of expanded operations, but no later than 180 days after initial start-up of the facilities (or increase in production, as appropriate) for each completed phase of the project and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.

    D. The facility being sampled shall operate at maximum operating rate of polyethylene drying during stack emission testing. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is

identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

During subsequent operations, the permit holder may operate at a short-term operating rate greater than the rate recorded during the last successful test period provided the new rate does not exceed 105% of the maximum operating rate recorded during the test. The permit holder may operate at this operating rate without additional stack test unless otherwise required by the Executive Director.

During subsequent operations, if the maximum production rates are greater than 105% of that recorded during the test period, stack sampling shall be performed at the new operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region. **(08/2020)**

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

One copy to the appropriate TCEQ Regional Office.

One copy to each local air pollution control program.

F. Sampling ports shall be incorporated into the design of the Pellet Dryers constructed after calendar year 2017 according to the specifications set forth in the attachment entitled "Chapter 2, Guidelines For Stack Sampling Facilities" of the TCEQ Sampling Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director.

VOC Storage and Loading

19. Tanks FIN TK-902 (EPN 03), TK-402 (EPN 28), TK-401 (EPN 29) V-912 (EPN 1792-11), Tank TK-903 (EPN 1792-47) service is limited to storing VOC with a vapor pressure less than 0.5 psia. **(08/2020)**

20. After commencement of expanded operation as described in Special Condition No. 3, tanks are subject to the following requirements:

A. 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 or utilize bottom fill.

B. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar month and the past consecutive 12 month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

Emissions from tanks shall be calculated using the AP-42 methods that were used to determine the MAERT limits in the permit amendment application, PI-1 July 1, 2015. Sample

calculations from the application shall either be attached to a copy of this permit at the plant site or maintained and available upon request.

21. Diesel Fuel tanks V-905 (EPN 1792-42) and V-930 (EPN 1792-44) shall be exempt from Special Condition No. 20.A.

22. The permit holder shall not allow visible emissions resulting from loading or unloading of the Storage Tanks identified as EPNs 28, 29, 1792-11, F-05, 1792-44, 1792-45, and 1792-48.

23. Visible emissions, except uncombined water, to the atmosphere shall not exceed 5.0 percent opacity in any five-minute period from any point or fugitive source associated with the Storage Tanks identified as EPNs 30 and 3.

24. After commencement of expanded operations of the first production line as described in Special Condition No. 3, the permit holder shall maintain and update a monthly emissions record which includes calculated emissions of VOC from all liquid loading operations over the previous rolling 12-month period. The record shall include the loading spot, control method used, quantity loaded in gallons, name of the liquid loaded, vapor molecular weight, liquid temperature in degrees Fahrenheit, liquid vapor pressure at the liquid temperature in psia, liquid throughput for the previous month and rolling 12-months to date. Records of VOC temperature are not required to be kept for liquids loaded from unheated tanks which receive liquids that are at or below ambient temperatures. Emissions shall be calculated using the TCEQ publication titled “Technical Guidance Package for Chemical Sources - Loading Operations.”

25. After commencement of expanded operations of the first production line as described in Special Condition No. 3, all liquid loading lines and connectors shall be visually inspected for any defects prior to hookup. Lines and connectors that are visibly damaged shall be removed from service. Operations shall cease immediately upon detection of any liquid leaking from the lines or connections.

26. Slop Oil Loading at EPN LL03 shall be submerged fill or utilize bottom fill and rolling 12 month rack throughput records shall be updated on a monthly basis for each product loaded.

Baghouse/Filters

27. Particulate matter emissions shall not exceed 0.01 grain per dry standard cubic foot (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. EPA Test Method 22. **(08/2020)**

    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.

Engine (EPN 1792-43)

28. The permit holder shall maintain a record to demonstrate that routine operation of the engine associated with EPN 1792-43 does not exceed 82 hours per year, on a rolling 12-month basis.

Cooling Tower (EPN 1792-76)

29. The cooling towers (EPN 1792-76) shall be operated and monitored in accordance with the following: **(08/2020)**

    A. The VOC associated with cooling towers (EPN 1792-76) water shall be monitored weekly with an air stripping system meeting the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or an approved equivalent sampling method. The results of the monitoring, cooling water flow rate and maintenance activities on the cooling water system shall be recorded. The monitoring results and cooling water hourly mass flow rate shall be used to determine cooling tower hourly VOC emissions. The rolling 12-month cooling water emission rate shall be recorded on a monthly basis and be determined by summing the VOC emissions between VOC monitoring periods over the rolling 12 month period. The emissions between VOC monitoring periods shall be obtained by multiplying the total cooling water mass flow between cooling water monitoring periods by the higher of the 2 VOC monitored results.

    B. In lieu of Paragraph A, a continuous on-line monitor capable of providing total HRVOC and speciated HRVOCs in ppbw may be installed. The sampling system for the continuous on-line monitoring system must be demonstrated equivalent to the air-stripping apparatus used in Appendix P for determining strippable HRVOC concentrations in the water as specified in 30 TAC § 115.764(f). The continuous on-line monitor system must satisfy the requirements of Sections 8.3, 10, 13.1, and 13.2 of 40 Code of Federal Regulations (CFR) Part 60, Appendix B, Performance Specification 9, as amended through October 17, 2000 (65 FR 61744). The multi-point calibration procedure in Section 10.1 of Performance Specification 9 must be performed at least once every calendar quarter instead of once every month. The online monitoring system must be operated as required at least 95% of the time when the cooling tower is operational, averaged over a rolling 12-month period. During out-of-order periods of the on-line HRVOC monitor(s) of 24 hours or greater, sampling must be performed for total and speciated HRVOC analysis according to the air-stripping method in Appendix P. Sampling must be performed at least three times per calendar week, with an interval of no less than 36 hours between sampling times, until the continuous on-line monitor is properly operating and within the required performance specifications.

    C. The cooling tower shall be equipped with drift eliminators having manufacturer's design assurance of 0.0005% drift or less. Drifts eliminators shall be maintained and inspected at least annually. The permit holder shall maintain records of all inspections and repairs. **(08/2020)**

    D. Total dissolved solids (TDS) shall not exceed 3,500 parts per million by weight (ppmw). Dissolved solids in the cooling water drift are considered to be emitted as PM, PM_{10}, and $PM_{2.5}$ as represented in the permit application calculations. **(08/2020)**

    E. The cooling water (EPN 1792-76) shall be sampled at least once per week for TDS. **(08/2020)**

    F. Cooling water sampling shall be representative of the cooling tower feed water and shall be conducted using approved methods.

        (1) The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, or SM 2540 C [SM - 19th edition of Standard Methods for Examination of Water]. Water samples should be capped upon collection, and transferred to a laboratory area for analysis.

(2) Alternate sampling and analysis methods may be used to comply with G.(1) with written approval from the TCEQ Regional Director.

(3) Records of all instrument calibrations and test results and process measurements used for the emission calculations shall be retained. If testing is done by an outside lab, instrument calibration records are not required.

G. Emission rates of PM, PM_{10} and $PM_{2.5}$ shall be calculated using the measured TDS, the design drift rate and the daily maximum and average actual cooling water circulation rate for the short term and annual average rates. Alternately, the design maximum circulation rate may be used for all calculations. Emission records shall be updated monthly.

Fugitives

30. Piping, Valves, Connectors, Flanges, Pumps and Compressors in VOC Service – 28RCT

Prior to expanded operations, the following requirements apply to the facilities that are in the scope of this permit.

A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure equal to or less than 0.044 pound 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 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 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 10,000 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 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 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. Fugitive emission monitoring required by 30 TAC Chapter 115 may be used in lieu of Items F through I of this condition.

L. Compliance with the requirements of this condition does not assure compliance with requirements of an applicable New Source Performance Standard (NSPS) or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAP) and does not constitute approval of alternative standards for these regulations.

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

After commencement of expanded operations of the first production line as described in Special Condition No. 3, 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:

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

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.

Connectors in VOC Service Inspected Quarterly - (28CNTQ)

32. The following requirements also apply to the facilities that are in the scope of this permit.

A. In addition to the weekly physical inspection required by Item E of Special Condition Nos. 30 and 31, all accessible connectors in gas/vapor and light liquid service shall be monitored quarterly with an approved gas analyzer in accordance with Items F through J of Special Condition Nos. 30 and 31.

B. Allowance for reduced monitoring frequencies.

(1) The frequency of monitoring may be reduced from quarterly to semiannually if the percent of connectors leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

(2) The frequency of monitoring may be reduced from semiannually to annually if the percent of connectors leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

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

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

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

Where:

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

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

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

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

Planned Maintenance, Startup, and Shutdown (MSS)

33. Prior to expanded operations, this permit authorizes maintenance emissions from EPN 1792-4M when production is occurring. Maintenance activities during production shall not exceed 480 hours per year on a rolling 12-month basis. Polyethylene production shall not exceed 85,000 lbs in any 60-minute period during maintenance operations. The 480 hours of maintenance, startup, and shutdown activities related to EPN 1792-4M are shown in Attachment A to this permit.

34. This permit authorizes emissions from the Flare X-901 (EPN 45) for the following maintenance, start-up, and shutdown activities from polyethylene lines one through six and the purification process for reactor purges, compressor purges, high pressure pump purges, hopper venting, and pump venting from polyethylene lines one through six and purification process. Emissions are limited to the hourly and annual limits in the attached table entitled “Emission Sources – Maximum Allowable Emission Rates.”

These emissions are subject to the maximum allowable emission rates indicated on the MAERT. Any start-up, shutdown, and maintenance activities not in the above list are not authorized by this permit. The permit holder shall maintain a record to demonstrate that start-up, shutdown, and maintenance operations associated with each EPN demonstrate compliance. These records shall be kept at the plant demonstrating compliance with this representation for the last five years.

Testing

35. Prior to expanded operations of a production line the pellet fugitives shall be tested quarterly using the beverage can test or headspace analysis after the pellets exit the dryer.

Recordkeeping

36. The records required by this special condition 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.

    A. The hourly and annual production from Line Nos. 1-6 as required in Special Condition Nos. 7 and 8. **(09/2023)**

    B. The monthly or quarterly beverage can test results or headspace analysis test results and the calculations demonstrating the emissions from Line Nos. 1-6 polyethylene pellets as required in Special Condition Nos. 8 and 35. **(09/2023)**

    C. The analysis results from the cooling tower tests and the identified heat exchanger leaks as required by Special Condition No. 29.

    D. Records to demonstrate compliance with fugitive Special Condition Nos. 30, 31 and 32.

    E. The flare pilot records as required in Special Condition No. 9.

    F. CEMS records as required in Special Condition No. 11.

    G. Temperature records as required in Special Condition No. 15.

    H. Engine records to demonstrate compliance with Special Condition No. 28. **(08/2020)**

Offsets – 2020 Flare Amendment (TCEQ Project No. 315800)

37. This Nonattainment (NNSR) permit is issued/approved based on the requirement that the permit holder offset the project emission increase for facilities authorized by NSR Permit Nos. 1504A, 2462C, 37063, 19027, and 46305 prior to the commencement of operation, through participation in the TCEQ Emission Banking and Trading (EBT) Program in accordance with the rules in 30 TAC Chapter 101, Subchapter H.

    A. The permit holder shall use 20.0 tpy of NO_x credits to offset the 16.60 tpy NO_x project emission increase for the facilities authorized by this permit at a ratio of 1.2 to 1.0

    B. The permit holder shall use 15.0 tons per year (tpy) of NOx emission reduction credits (ERCs) from TCEQ Certificate No. 3667, 4.1 tons per year from TCEQ Certificate No. 3668, and 0.9 tons per year from TCEQ Certificate No. 3720 to offset the NOx project emission increase for facilities authorized by TCEQ NSR Project No. 315800. **(06/2022)**

Permits by Rule (PBRs)

38. The following sources and/or activities are authorized under a PBR. This list is not intended to be all-inclusive and can be altered without modifications to this permit.

Authorization	Source or Activity
Unregistered PBR under Standard Exemption 106, as issued on March 14, 1997.	Particulate Matter from the Baghouses Emission Point Numbers (EPNs) 1792-24 and 1792-25, Facility Identification Numbers (FINs) F-190, F-191, and F-192.

Special Conditions Applicable to Flare X-001 (EPN 45) (These conditions will survive the termination of the Consent Decree)

39. Installation and Operation of Monitoring and Control Systems on Flare X-901 (EPN 45). **(09/2023)**

    A. The plant site must install and commence operation of the instrumentation, controls, and monitoring systems set forth in Special Conditions 40–43 for the following Flare: Flare X-901 (EPN 45) except for Newly Installed Covered Flares and Portable Flares installed after June 2, 2022.

    B. The plant site must operate the instrumentation, controls, and monitoring systems for Flare X-901 (EPN 45) in accordance with Special Conditions 45-47.

    C. Newly Installed Covered Flares and Portable Flares. By no later than the date that any Newly Installed Covered or Portable Flare is In Operation and Capable of Receiving Waste, Supplemental, and/or Sweep Gas, the plant site must have in place and commence operation of the instrumentation, controls, and monitoring systems set forth in Special Conditions 40–43, as specified for Steam-Assisted Flares and Air-Assisted Flares. The plant site must operate the instrumentation, controls, and monitoring systems for Newly Installed Covered Flares and Portable Flares installed after June 2, 2022 in accordance with Special Conditions 40–43 during all times when the Flare is In Operation and Capable of Receiving Waste, Supplemental, and/or Sweep Gas.

40. Vent Gas, Assist Steam, and Assist Air Monitoring Systems. **(09/2023)**

    A. For Flare X-901 (EPN 45), the plant site must install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate of Vent Gas in the header or headers feeding Flare X-901 (EPN 45). This system must also be able to continuously analyze pressure and temperature at each point of Vent Gas flow measurement. Different flow monitoring methods may be used to measure different gaseous streams that make up the Vent Gas provided that the flow rates of all gas streams that contribute to the Vent Gas are determined. Flow must be calculated in scfm.

    B. For Steam-Assisted Flare X-901 (EPN 45), the plant site must install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate of Assist Steam used with Steam-Assisted Flare X-901 (EPN 45). This system must also be able to continuously analyze the pressure and temperature of Assist Steam at a representative point of steam flow measurement. Flow must be calculated in scfm.

    C. For each Air-Assisted Flare, the plant site must install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate of Assist Air used with each Air- Assisted Flare. If premix assist air and Perimeter Assist Air are both used, the plant site must install, operate, calibrate, and maintain a monitoring system capable of separately continuously measuring, calculating, and

recording the volumetric flow rate of premix assist air and Perimeter Assist Air used with that Flare. Continuously monitoring fan speed or power and using fan curves is an acceptable method for continuously monitoring Assist Air flow rates.

D. Each flow rate monitoring system (whether for a Steam-Assisted Flare or an Air-Assisted Flare) must be able to correct for the temperature and pressure of the system and output parameters in Standard Conditions.

E. In lieu of a monitoring system that directly measures volumetric flow rate, the plant site may choose from the following additional options for monitoring any gas stream:

(1) Mass flow monitors may be used for determining the volumetric flow rate of Assist Steam provided that the plant site converts the mass flow rates to volumetric flow rates pursuant to the methodology in Step 2 of Appendix 1.2;

(2) Mass flow monitors may be used for determining the volumetric flow rate of Vent Gas, provided the plant site determines the molecular weight of such Vent Gas using compositional analysis data collected pursuant to the monitoring method specified in Special Condition 43.A and provided that the plant site converts the mass flow rates to volumetric flow rates pursuant to the methodology in Step 2 of Appendix 1.2; and

(3) Continuous pressure/temperature monitoring system(s) and appropriate engineering calculations may be used in lieu of a continuous volumetric flow monitoring system provided the molecular weight of the gas is known and provided the plant site complies with the methodology in Step 2 of Appendix 1.2 for calculating volumetric flow rates. For Vent Gas, the plant site must determine molecular weight using compositional analysis data collected pursuant to the monitoring method specified in Special Condition 43.A.

41. Assist Steam Control Equipment. The plant site must install and commence operation of equipment, including, as necessary, main and trim control valves and piping which enables the plant site to control Assist Steam flow to Steam-Assisted Flare X-901 (EPN 45) in a manner sufficient to ensure compliance with these provisions. **(09/2023)**

42. Video Camera. The plant site must install and commence operation of a video camera that is capable of monitoring and recording, in digital format, the flame of and any Smoke Emissions from Flare X-901 (EPN 45). It is not a violation of this Special Condition or Special Condition 46, however, if a Flare video camera cannot discern the Flare Combustion Zone and/or any Smoke Emissions at Flare X-901 (EPN 45) subject to these provisions during periods of weather conditions such as fog or snow, provided that recordings are created and retained during these time periods. **(09/2023)**

43. Vent Gas Compositional Monitoring or Direct Monitoring of Net Heating Value of Vent Gas. For Flare X-901 (EPN 45), the plant site must either determine the concentration of individual components in the Vent Gas or directly monitor the Net Heating Value of the Vent Gas (NHVvg) in compliance with one of the methods specified in this Special Condition. The plant site may elect to use different monitoring methods (of the methods provided in this Special Condition) for different gaseous streams that make up the Vent Gas, provided the composition or Net Heating Value of all gas streams that contribute to the Vent Gas are determined. The plant site must: **(09/2023)**

A. Install, operate, calibrate, and maintain a monitoring system capable of continuously measuring (*i.e.*, at least once every 15 minutes), calculating, and recording the individual component concentrations present in the Vent Gas; or

B. Install, operate, calibrate, and maintain a calorimeter capable of continuously measuring (*i.e.*, at least once every 15 minutes), calculating, and recording the NHV*vg* at Standard Conditions. If the plant site elects this method, the plant site may install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the hydrogen concentration in the Vent Gas. The sample extraction point of the calorimeter may be located upstream of the introduction of Supplemental Gas or Sweep Gas or Purge Gas if the composition and flow rate of all such downstream gas(es) is known, and if these known values are then used in the calculation of the Net Heating Value of Vent Gas.

C. If the plant site elects the method in Special Condition 43.B above, and the Net Heating Value of the Vent Gas exceeds the upper calibrated span of the calorimeter on Flare X-901 (EPN 45), then the plant site must use the value of the upper calibrated span of that calorimeter for calculating the NHV*vg* at Standard Conditions until the Net Heating Value of the Vent Gas returns to within the measured calibrated span. Use of this method will not constitute instrument system downtime for the period of time that the Net Heating Value of the Vent Gas exceeds the upper calibrated span of the calorimeter.

Direct compositional or Net Heating Value monitoring is not required for purchased ("pipeline quality") natural gas streams. The Net Heating Value of purchased natural gas streams may be determined using annual or more frequent grab sampling at any one representative location. Alternatively, the Net Heating Value of any purchased natural gas stream can be assumed to be 920 BTU/scf.

44. Instrumentation and Monitoring Systems: Optional Equipment. To continuously measure and calculate flow of all Pilot Gas to Flare X-901 (EPN 45) in scfm, the plant site, at its option, may either: a) install (if not already installed) an instrument, or b) use a restriction orifice and pressure measurements. The plant site may use the data generated by this instrument or restriction orifice as part of the calculation of the Net Heating Value of the Combustion Zone Gas. **(09/2023)**

45. Instrumentation and Monitoring Systems: Specifications, Calibration, Quality Control, and Maintenance. The plant site must comply with Special Conditions 45.A through 45.E, provided, however, the plant site may elect instead to utilize exemptions set forth in 40 C.F.R.§ 63.1103(e)(4)(i) through (ix). **(09/2023)**

A. The instrumentation and monitoring systems identified in Special Conditions 40 and 43 must:

(1) Meet or exceed all applicable minimum accuracy, calibration and quality control requirements specified in Table 13 of 40 C.F.R. Part 63, Subpart CC;

(2) Have an associated readout (*i.e.*, a visual display or record) or other indication of the monitored operating parameter that is readily accessible onsite for operational control or inspection by the plant site;

(3) Be capable of measuring the appropriate parameter over the range of values expected for that measurement location; and

(4) Have an associated data recording system with a resolution that is equal to or better than the required instrumentation/system accuracy.

B. The plant site must operate, maintain, and calibrate each instrument and monitoring system identified in Special Conditions 40 and 43 according to a monitoring plan that contains the information listed in 40 C.F.R. § 63.671(b)(1)-(5). However, if the plant site is determining NHVcz using a process mass spectrometer, the plant site may use the methods established

for determining NHVcz in the February 5, 2018 letter to representatives of Extrel CMS, LLC and AMETEK, Energy and Process Division from Steffan M. Johnson, Group Leader, Measurement Technology Group, Office of Air Quality Planning and Standards (attached as Appendix 2.1) in lieu of complying with 40 C.F.R. § 63.671(b)(1)-(5)'s requirements for determining NHVcz using Gas Chromatographs.

C. All gas chromatograph monitoring systems used to comply with Special Condition 43.A must also meet the requirements of 40 C.F.R. § 63.671(e)(1) through (3) (Additional Requirements for Gas Chromatographs) regardless of whether the Gas Chromatographs are complying with 40 C.F.R. § 63.671(e)(1)-(3) or the methods outlined in Appendix 2.1.

D. For each instrumentation and monitoring system required by Special Conditions 40 and 43, the plant site must comply with the out-of- control procedures described in 40 C.F.R. § 63.671(c)(1) and (2), and with the data reduction requirements specified in 40 C.F.R. § 63.671(d)(1) through (3).

E. The language in 40 C.F.R. § 63.671, Table 13 of 40 C.F.R. Part 63, Subpart CC, or in any regulatory provision cross-referenced in 40 C.F.R. § 63.671 or Table 13 of 40 C.F.R. Part 63, Subpart CC, that limits the applicability of these regulatory requirements to periods when "regulated material" (as defined in 40 C.F.R. § 63.641) is routed to a Flare, is not applicable for purposes of this Permit. In addition, for purposes of this Permit, the language in 40 C.F.R. § 63.671, Table 13 of 40 C.F.R. Part 63, Subpart CC, or in any regulatory provision cross-referenced in 40 C.F.R. § 63.671 or Table 13 of 40 C.F.R. Part 63, Subpart CC, that refers to a continuous parametric monitoring system will instead be read to refer to the instrumentation and monitoring systems required by Special Conditions 40 and 43.

46. Instrumentation and Monitoring Systems: Recording and Averaging Times. The instrumentation and monitoring systems identified in Special Conditions 40 and 42-43 must be able to produce and record data measurements and calculations for each parameter at the following time intervals: **(09/2023)**

Instrumentation and Monitoring System	**Recording and Averaging Times**
Vent Gas, Assist Steam Flow, Assist Air Flow, and (if installed) Pilot Gas Flow Monitoring Systems	Measure continuously and record 15-minute block averages
Vent Gas Compositional Monitoring (if using the methodology in Special Condition 43.A.)	Measure no less than once every 15 minutes and record that value
Vent Gas Net Heating Value Analyzer (if using the methodology in Special Condition 43.B.)	Measure continuously and record 15-minute block averages
Video Camera	Record at a rate of no less than 4 frames per minute

The term "continuously" means to make a measurement as often as the manufacturer's stated design capabilities of the flow monitors (for Vent Gas, Assist Steam, Assist Air, and (if installed) Pilot Gas) and the Vent Gas Net Heating Value Analyzers during each fifteen (15) minute block period, but in no case shall the flow monitors or the Vent Gas Net Heating Value Analyzers make less than one measurement in each fifteen (15) minute block period. The measurement results are then averaged and recorded to represent each fifteen (15) minute block period. Nothing in this Special Condition prohibits the plant site from setting up process control logic that uses different

averaging times from those in this table, provided that the recording and averaging times in this table are available and used for determining compliance with this Permit.

47. Instrumentation and Monitoring Systems: Operation. The plant site must operate each of the instruments and monitoring systems required by Special Conditions 40 and 42-43 and collect data on a continuous basis when the Flare that the instrument and/or monitoring system is associated with is In Operation and Capable of Receiving Sweep, Supplemental, and/or Waste Gas, except for: a) the periods of Instrument Downtime specified in Special Conditions 53.A-53.D. **(09/2023)**

Flare Combustion Efficiency

48. General Emission Standards Applicable to Flare X-901 (EPN 45). The plant site must comply with the requirements set forth in this Special Condition at each Flare at all times when Flare X-901 (EPN 45) is in operation. **(09/2023)**

A. Operation during Emissions Venting. The plant site must operate Flare X-901 (EPN 45) at all times when emissions may be vented to it.

B. No Visible Emissions. The plant site must specify, the smokeless design capacity of each Flare and operate with no Visible Emissions when Flare X-901 (EPN 45) is In Operation and the Vent Gas flow is less than the smokeless design capacity of Flare X-901 (EPN 45)., the plant site must monitor, as specified below in sub-Special Conditions 48.B(1) or 48.B(2), for Visible Emissions from Flare X-901 (EPN 45) while it is In Operation. An initial Visible Emissions demonstration must be conducted using an observation period of 2 hours using Method 22 at 40 C.F.R. Part 60, Appendix A–7. Subsequent Visible Emissions observations must be conducted using either method listed in sub-Special Conditions 48.B(1) or 48.B(2). The plant site must record and report any instances where Visible Emissions are observed for more than 5 minutes during any 2 consecutive hours as specified in 40 C.F.R. § 63.655(g)(11)(ii).

(1) At least once per Day, the plant site must conduct Visible Emissions observations using an observation period of 5 minutes using Method 22 at 40 C.F.R. Part 60, Appendix A–7. If at any time the plant site Visible Emissions are observed, even if the minimum required daily Visible Emission monitoring has already been performed, the plant site must immediately begin an observation period of 5 minutes using Method 22 at 40 C.F.R. Part 60, Appendix A–7. If Visible Emissions are observed for more than one continuous minute during any 5- minute observation period, the observation period using Method 22 at 40 C.F.R. Part 60, Appendix A–7 must be extended to 2 hours or until 5 minutes of Visible Emissions are observed.

(2) Alternatively, the plant site may use a video surveillance camera to continuously record (at least one frame every 15 seconds with time and date stamps) images of the Flare flame at a reasonable distance above the Flare flame and at an angle suitable for Visible Emissions observations. The plant site must provide real-time video surveillance camera output to the control room or other continuously staffed location where the camera images may be viewed at any time.

C. Pilot Flame Presence. The plant site must operate Flare X-901 (EPN 45) with a pilot flame present at all times. The plant site must continuously monitor the presence of the pilot flame(s) using a device (including, but not limited to, a thermocouple, ultraviolet beam sensor, or infrared sensor) capable of detecting that the pilot flame is present.

D. Monitoring According to Applicable Provisions. The plant site must comply with all applicable Subparts of 40 C.F.R. Parts 60, 61, or 63 except as provided in Special Condition 51.

E. Good Air Pollution Control Practices. The plant site must at all times, including during periods of startup, shutdown, and/or Malfunction, implement good air pollution control practices to minimize emissions from Flare X-901 (EPN 45). Nothing in this sub-Special Condition 48.E requires the plant site to install or maintain Flare monitoring equipment in addition to or different from the equipment required by this Permit.

49. Flare Tip Velocity or Vtip. The plant site must operate Flare X-901 (EPN 45) in compliance with either sub-Special Condition 49.A or 49.B below, provided that the appropriate monitoring systems are in place, whenever the Vent Gas flow rate is less than the smokeless design capacity of Flare X-901 (EPN 45). **(09/2023)**

A. The actual Flare Tip Velocity (Vtip) must be less than 60 feet per second. The plant site must monitor Vtip using the procedures specified in Appendix 1.2, or

B. Vtip must be less than 400 feet per second and also less than the maximum allowed Flare Tip Velocity (Vmax) as calculated according to Equation 11 in Appendix 1.2. The plant site must monitor Vtip and gas composition, and must determine NHVvg using the procedures specified in Appendix 1.2. The Unobstructed Cross Sectional Area of the Flare Tip must be calculated consistent with Appendix 1.3.

50. Operation According to Design. The plant site must operate and maintain Flare X-901 (EPN 45) in accordance with its design and the requirements of this Permit. **(09/2023)**

51. Net Heating Value Standards. The plant site must comply with the following Net Heating Value standards, except as provided in Special Conditions 53 (Standard During Instrument Downtime). **(09/2023)**

A. Net Heating Value of Combustion Zone Gas (NHV*cz*) for Flare X-901 (EPN 45) At any time a Flare is In Operation, the plant site must operate Flare X-901 (EPN 45) so as to maintain the NHVcz at or above 270 BTU/scf, as determined on a 15-minute block period basis when Waste Gas is routed to the Flare for at least 15 minutes. The plant site must monitor and calculate NHVcz at each Flare in accordance with Appendix 1.2.

B. Dilution Operating Limits for Flares with Perimeter Assist Air (NHVdil). While an Air-Assisted Flare is In Operation, the plant site must maintain the Net Heating Value Dilution parameter (NHVdil) at or above 22 BTU/square foot determined on a 15-minute block period basis, when Waste Gas is routed to the Flare for at least 15 minutes. The plant site must monitor and calculate NHVdil at the Flare when actively receiving Perimeter Assist Air in accordance with Appendix 1.2.

52. 98% Combustion Efficiency. The plant site must operate Flare X-901 (EPN 45) with a minimum of a 98% Combustion Efficiency at all times when Waste Gas is vented to the flares. To demonstrate continuous compliance with the 98% Combustion Efficiency, the plant site must operate each Steam-Assisted Flare in compliance with Special Condition 51.A and each Air-Assisted Flare in compliance with Special Conditions 51.A and 51.B. **(09/2023)**

53. Standard During Instrument Downtime. If one or more of the following conditions (collectively referred to as “Instrument Downtime”) is present and renders the plant site incapable of operating Flare X-901 (EPN 45) in accordance with the applicable NHV standards in Special Condition 51, the

plant site must operate Flare X-901 (EPN 45) in accordance with good air pollution control practices so as to minimize emissions and ensure good combustion efficiency at Flare X-901 (EPN 45): **(09/2023)**

A. Malfunction of an instrument needed to meet the requirement(s);

B. Repairs following Malfunction of an instrument needed to meet the requirement(s);

C. Recommended scheduled maintenance of an instrument in accordance with the manufacturer's recommended schedule, for an instrument needed to meet the requirement(s); and/or

D. Quality Assurance/Quality Control activities on an instrument needed to meet the requirement(s).

Instrument Downtime must be calculated in accordance with 40 C.F.R. § 60.13(h)(2). In no event must Instrument Downtime exceed 5% of the time in a Semi-Annual Period that Flare X-901 (EPN 45) is affected by the Instrument Downtime is In Operation. For purposes of calculating the 5%, the time used for NHV Analyzer or gas chromatograph calibration and validation activities may be excluded.

54. Recordkeeping for Flare X-901 (EPN 45): Timing and Substance. The plant site must comply with the following recordkeeping requirements: **(09/2023)**

A. The plant site must calculate and record each of the following parameters:

(1) Volumetric flow rates of all gas streams that contribute to the Vent Gas volumetric flow rate (in scfm) (in 15-minute block averages and in accordance with any calculation requirements of Special Conditions 40, 46, and Step 2 of Appendix 1.2);

(2) Assist Steam volumetric flow rate (in scfm) (in 15-minute block averages and in accordance with any calculation requirements of Special Conditions 40, 46, and Step 2 of Appendix 1.2);

(3) Assist Air volumetric flow rate (in scfm) (in 15-minute block averages and in accordance with any calculation requirements of Special Conditions 41, 47, and Step 2 of Appendix 1.2);

(4) NHVvg (in BTU/scf) (in 15-minute block averages in accordance with Step 1 of Appendix 1.2);

(5) NHVdil (in BTU/ft2) (in 15-minute block averages in accordance with Step 4 of Appendix 1.2); and

(6) NHVcz (in BTU/scf) (in 15-minute block averages in accordance with Step 3 of Appendix 1.2).

B. For Flare X-901 (EPN 45), the plant site must record the duration of all periods of Instrument Downtime for Flare X-901 (EPN 45) that exceed 5% of the time in a Semi-Annual Period that Flare X-901 (EPN 45) is In Operation. The plant site must record which instrument(s) experienced the downtime, if Flare X-901 (EPN 45) was affected by the downtime, an explanation of the cause(s) of the deviation, and a description of the corrective action(s) that the plant site took.

C. At any time that the plant site deviates from the emissions standards in Special Conditions 51- 53 at Flare X-901 (EPN 45), the plant site must record the duration of the deviation, an explanation of the cause(s) of the deviation, and a description of the corrective action(s) that the plant site took.

Date: September 28, 2023

Permit Number 2462C and N294

ATTACHMENT A

Maintenance Activities Authorized for a Rolling 12-Month Period

Maintenance Descriptions

Maintenance and testing for analyzers and related equipment

Maintenance for blowers and related equipment

Maintenance for feeders and related equipment

Maintenance for filters and related equipment

Maintenance for filter guards and related equipment

Maintenance for fuel gas PSV and related equipment

Filter fluff removal

Catalyst replacement

Heat exchanger inspection

Miscellaneous maintenance for systems and equipment routed to EPN 1792-4B (H-3030 Catalytic Oxidizer) - Before Expansion

Miscellaneous maintenance on H-3030 Catalytic Oxidizer not to exceed 480 hrs/yr (EPN 1792-4M) - Before Expansion

Miscellaneous maintenance for systems and equipment routed to EPN ROX-1 and maintenance on EPN ROX-1 (Regenerative Thermal Oxidizer) identified as ROX-DT not to exceed 100 hrs/yr – After Expansion

Date: August 20, 2020

Permit Number 2462C and N294

ATTACHMENT B

Atmospheric Safety Devices with Potential for >1% VOC Gases

Excepted Relief Device per Special Condition 2					
PSE-101	PSE-125	PSV-150	PSE-358B	PSE-1507	PSV-1631
PSE-102	PSE-126	PSE-175	PSV-440	PSE-1508	PSE (F-3031)
PSE-103	PSE-127	PSV-351	PSV-441	PSE-1510	PSE-3031A
PSE-104	PSE-128	PSE-351A	PSV-442	PSE-1511	PSE-3031B
PSE-105	PSE-129	PSE-351B	PSV-443	PSE-1512	PSV-3464
PSE-106	PSE-130	PSV-352	PSV-904	PSE-1523A	PSE-3464A
PSE-107	PSE-131	PSE-352A	PSV-911	PSE-1523B	PSE-3464B
PSE-108	PSE-132	PSE-352B	PSV-912	PSV-1531	PSV-3465
PSE-109	PSE-133	PSV-353	PSV-929	PSE-1560	PSE-3465A
PSV-109B	PSE-134	PSE-353A	PSV-1001	PSE-1561	PSE-3465B
PSE-110	PSE-135	PSE-353B	PSV-1002	PSE-1562	PSV-3466
PSE-111	PSE-136	PSV-354	PSV-1003	PSE-1601	PSE-3466A
PSV-111	PSE-137	PSE-354A	PSV-1004	PSE-1602	PSE-3466B
PSE-112	PSE-138	PSE-354B	PSE-1105	PSE-1603	PSV-3467
PSE-113	PSE-139	PSV-355	PSE-1106	PSE-1604	PSE-3467A
PSE-114	PSE-140	PSE-355A	PSE-1107	PSE-1605	PSE-3467B
PSE-115	PSE-141	PSE-355B	PSE-1108	PSE-1606	PSV-4732
PSE-116	PSE-142	PSV-356	PSE-1170	PSE-1607	PSV-4712
PSE-117	PSE-143	PSE-356A	PSE-1177	PSE-1608	PSE-10190
PSE-118	PSE-144	PSE-356B	PSE-1501	PSE-1610	PSE-10191
PSE-119	PSE-145	PSV-357	PSE-1502	PSE-1611	PSE-10192
PSE-120	PSE-146	PSE-357A	PSE-1503	PSE-1612	PSE-11019
PSE-121	PSE-147	PSE-357B	PSE-1504	PSE-1624	PSE-12019
PSE-122	PSE-148	PSV-358	PSE-1505	PSE-1625	PSE-13019
PSE-123	PSE-149	PSE-358A	PSE-1506	PSE-1626	PSE-14019
PSE-124	PSE-150	PSE-0014			

The following list of excepted relief devices were installed prior to expanded operation as described in Special Condition No. 3; TCEQ Air Permit Division review shall apply to move the device to the previous exemption list if the relief device is modified.

Excepted Relief Device per Special Condition 2					
PSV-117	PSE-165	PSV-191B	PSV-1068	PSV-1539B	PSV-4686B
PSV-136A	PSE (V-166)	PSV-428A	PSV-1504	PSE-1557	PSV-4687A
PSV-159A	PSE-166	PSV-428B	PSV-1508A	PSV-1557	PSV-4687B
PSV-159B	PSE-169A	PSV-444	PSV-1508B	PSE-1558	PSV-4691A
PSV-160A	PSE-169B	PSV-801	PSV-1509A	PSE-1559	PSV-4691B
PSV-160B	PSV-173	PSV-803	PSV-1509B	PSV-1604	PSV-4742
PSV-161A	PSV-174	PSV-903A	PSV-1510	PSV-1608A	PSV-7110
PSV-161B	PSE-186	PSV-903B	PSE-1517A	PSV-1608B	PSE-10127
PSV-162	PSV-187	PSV-907	PSE-1517B	PSV-1609A	PSE-10132
PSE (V-163)	PSE-190	PSV-931A	PSE-1522	PSV-1609B	PSV-10139
PSE-163	PSV-190A	PSV-931B	PSV-1538A	PSV-1610	PSV-10140
PSE (V-164)	PSV-190B	PSV-1007	PSV-1538B	PSE-1622	PSE-15101
PSE-164	PSV-191A	PSV-1067	PSV-1539A	PSV-4686A	PSE-16101
PSE (V-165)					

Date: August 20, 2020

Attachment C – Permit 2462C

Appendix 1.1-1.3 and 2.1

Appendix 1.1 – Incorporated Consent Decree Definitions

The definitions in Appendix 1.1 of Attachment D are only applicable to Special Conditions 39-54 of this permit.

"Air-Assisted Flare" or "Airasst" means a Flare that uses Assist Air to assist in combustion.

"Assist Air" means all air that is intentionally introduced before or at a Flare tip through nozzles or other hardware conveyance for the purposes of, including, but not limited to, protecting the design of the Flare tip, promoting turbulence for mixing, or inducing air into the flame. Assist Air includes premix assist air and Perimeter Assist Air. Assist Air does not include surrounding ambient air.

"Assist Steam" means all steam that is intentionally introduced before or at a Flare tip through nozzles or other hardware conveyance for the purposes of, including, but not limited to, protecting the design of the Flare tip, promoting turbulence for mixing, or inducing air into the flame. Assist Steam includes, but is not necessarily limited to, center steam, lower steam, and upper steam.

"Backup Flare" means a Flare that is permanently installed and that receives Waste Gas only when the Waste Gas has been redirected to it from a Covered Flare.

"BTU/scf" means British Thermal Unit per standard cubic foot.

"Calendar Quarter" means a three-month period ending on March 31, June 30, September 30, or December 31.

"Capable of Receiving Sweep, Supplemental, and/or Waste Gas" means, for a Flare, that the flow of Sweep Gas, Supplemental Gas, and/or Waste Gas is not prevented from being directed to the Flare by means of an isolation device such as closed valves, blinds, or stopples.

"Cedar Bayou Flares" means the following Steam-Assisted Flares and Air- Assisted Flares located at the Cedar Bayou Plant:

- X-901 (Steam-Assisted)

"Cedar Bayou Plant" means the petrochemical manufacturing plant owned and operated by the plant site, located at 9500 I-10 East, Baytown, Texas 77521-9570.

"Combustion Efficiency" or "CE" means a Flare's efficiency in converting the organic carbon compounds found in Combustion Zone Gas to carbon dioxide. Combustion Efficiency must be determined in accordance with the NHVcz calculations in Appendix 1.2.

"Combustion Zone" means the area of the Flare flame where the Combustion Zone Gas combines for combustion.

"Combustion Zone Gas" means all gases and vapors found after the Flare tip. This gas includes all Vent Gas, Pilot Gas, Total Steam, and Assist Air.

"Covered Air-Assisted Flares" means each of the Flares that are Air-Assisted Flares.

"Covered Flare" or "Covered Flares" means each of the following Flares, as well as any Newly Installed Covered Flare, Portable Flare, or Backup Flare in use at the plant, provided however that once a Covered Flare is permanently taken out of service and that change is reported in the subsequent Semi-Annual Report, that Flare is no longer a Covered Flare:

- Flare: X-901 (EPN 45)

"Covered Steam-Assisted Flares" means each of the Covered Flares that are Steam-Assisted Flares.

"Day" means a calendar day unless expressly stated to be a business day. In computing any period of time for a compliance deadline, where the last day would fall on a Saturday, Sunday, or federal or state holiday, the period will run until the close of business of the next business day.

"External Utility Loss" means a loss in the supply of electrical power or other third-party utility to a Covered Plant that is caused by actions occurring outside the boundaries of a Covered Plant, excluding utility losses due to an interruptible utility service agreement.

"Flare" means a combustion device lacking an enclosed combustion chamber that uses an uncontrolled volume of ambient air to burn gases.

"Flare Tip Velocity" or "Vtip" means the velocity of gases exiting the Flare tip as defined in Special Condition 49.

"In Operation," with respect to a Flare, means all times that Sweep, Supplemental, or Waste Gas is or may be vented to a Flare. A Flare that is In Operation is Capable of Receiving Sweep, Supplemental, or Waste Gas unless all Sweep, Supplemental, and Waste Gas flow is prevented by means of an isolation device such as closed valves, blinds, and/or stopples.

"Malfunction" means, as specified in 40 C.F.R. § 60.2, any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not Malfunctions.

"Monitoring System Malfunction" means any sudden, infrequent, and not reasonably preventable failure of instrumentation or a monitoring system to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not Monitoring System Malfunctions.

"MMSCFD" or "mmscfd" means million standard cubic feet per Day.

"MMSCFH" or "mmscfh" means million standard cubic feet per hour.

"MSCFH" of "mscfh" means thousand standard cubic feet per hour.

"Net Heating Value" or "NHV" means the theoretical total quantity of heat liberated by the complete combustion of a unit volume or weight of a fuel initially at 25 degrees Centigrade and 760 mmHg, assuming that the produced water is vaporized and all combustion products remain at, or are returned to, 25 degrees Centigrade; however, the standard for determining the volume corresponding to one mole is 20 degrees Centigrade.

“Net Heating Value Analyzer” or “NHV Analyzer” means an instrument capable of measuring the Net Heating Value of Vent Gas in BTU/scf. The sample extraction point of a Net Heating Value Analyzer may be located upstream of the introduction of Supplemental Gas and/or Sweep Gas and/or Purge Gas if the composition and flow rate of any such Supplemental Gas and/or Sweep Gas and/or Purge Gas is known and if this known value then is used in the calculation of the Net Heating Value of the Vent Gas.

“Net Heating Value of Combustion Zone Gas” or “NHVcz” means the Net Heating Value, in BTU/scf, of the Combustion Zone Gas in a Flare. NHVcz must be calculated in accordance with Step 3 of Appendix 1.2.

“Net Heating Value of Dilution” or “NHVdil” means the Net Heating Value, in BTU/ft2, of the dilution zone gas in a Flare. NHVdil must be calculated in accordance with Step 4 of Appendix 1.2.

“Net Heating Value of Vent Gas” or “NHVvg” means the Net Heating Value, in BTU/scf, of the Vent Gas directed to a Flare. NHVvg must be calculated in accordance with Step 1 of Appendix 1.2.

“Newly Installed Covered Flare(s)” means any Flare (including any Backup Flare) that is permanently installed, receives Waste Gas that has been redirected to it from Flare X-901 (EPN 45).

“Perimeter Assist Air” means the portion of Assist Air introduced at the perimeter of the Flare tip or above the Flare tip. Perimeter Assist Air includes air intentionally entrained in lower and upper steam. Perimeter Assist Air includes all Assist Air except premix assist air.

“Pilot Gas” means gas introduced into a Flare tip that provides a flame to ignite the Vent Gas.

“Portable Flare” means any Flare that is not permanently installed and that receives Waste Gas that has been redirected to it from Flare X-901 (EPN 45).

“Prevention Measure” means an instrument, device, piece of equipment, system, process change, physical change to process equipment, procedure, or program to minimize or eliminate flaring.

“Purge Gas” means the gas introduced between a Flare header’s water seal and the Flare tip to prevent oxygen infiltration (backflow) into the Flare tip. For a Flare with no water seal, the function of Purge Gas is performed by Sweep Gas, and therefore, by definition, such a Flare has no Purge Gas.

“Smoke Emissions” shall have the definition set forth in Section 3.5 of Method 22 of 40 C.F.R. Part 60, Appendix A. Smoke Emissions may be either documented by a video camera or determined by an observer knowledgeable with respect to the general procedures for determining the presence of Smoke Emissions per Method 22.

“Standard Conditions” means a temperature of 68 degrees Fahrenheit and a pressure of 1 atmosphere. Unless otherwise expressly set forth in this Consent Decree or an Appendix, Standard Conditions apply.

“Steam-Assisted Flare” means a Flare that uses Assist Steam to assist in combustion.

“Supplemental Gas” means all gas introduced to a Flare in order to improve the combustible characteristics of the Combustion Zone Gas.

“Sweep Gas” means:

1. For a Flare with an FGRS: Gas intentionally introduced into a Flare header system to prevent oxygen buildup in the Flare header. Sweep Gas in these Flares is introduced prior to and recovered by the FGRS

2. For a Flare without an FGRS: Gas intentionally introduced into a Flare header system to maintain a constant flow of gas through the Flare header and out the Flare tip in order to prevent oxygen building in the Flare header and to prevent infiltration (backflow) into the Flare tip.

"Total Steam" means the total of all steam that is supplied to a Flare and includes, but is not limited to, lower steam, center steam, and upper steam.

"Turnaround" means a complete shutdown of any emission unit to: (1) perform necessary cleaning and repairs; (2) perform required tests and internal inspections; and/or (3) install any modifications or additions, or make preparations necessary for a future modification or addition.

"Unassisted Flare" means a Flare that does not use Assist Steam or Assist Air.

"Unobstructed Cross Sectional Area of the Flare Tip" or "Atip-unob" means the open, unobstructed area of a Flare tip through which Vent Gas and center steam pass. Diagrams of four common Flare types are set forth in Appendix 1.3 together with the equations for calculating the *Atip-unob* of these four types.

"Vent Gas" means all gas found just before the Flare tip. This gas includes all Waste Gas, that portion of Sweep Gas that is not recovered, Purge Gas, and Supplemental Gas, but does not include Pilot Gas, Total Steam, or Assist Air.

"Visible Emissions" means five minutes or more of Smoke Emissions during any two consecutive hours.

"Waste Gas" means the mixture of all gases from facility operations that is directed to a Flare for the purpose of disposing of the gas. "Waste Gas" does not include gas introduced to a Flare exclusively to make it operate safely and as intended; therefore, "Waste Gas" does not include Pilot Gas, Total Steam, Assist Air, or the minimum amount of Sweep Gas and Purge Gas that is necessary to perform the functions of Sweep Gas and Purge Gas. "Waste Gas" also does not include the minimum amount of gas introduced to a Flare to comply with regulatory and/or enforceable permit requirements regarding the combustible characteristics of Combustion Zone Gas; therefore, "Waste Gas" does not include Supplemental Gas. Depending upon the instrumentation that monitors Waste Gas, certain compounds (hydrogen, nitrogen, oxygen, carbon dioxide, carbon monoxide, and/or water (steam)) that are directed to a Flare for the purpose of disposing of these compounds may be excluded from calculations relating to Waste Gas flow.

Appendix 1.2 - Calculating Combustion Efficiency, Net Heating Value of the Combustion Zone Gas (NHVcz), the Net Heating Value Dilution Parameter (NHVdil), and Flare Tip Velocity

All abbreviations, constants, and variables are defined in the Key on Page 8 of this Appendix.

Combustion Efficiency Equation:

$$CE = [CO2]/([COx] + [CO] + [OC])$$

where:

[CO_2] = Concentration in volume percent or ppm-meters of carbon dioxide in the combusted gas immediately above the Combustion Zone

[CO] = Concentration in volume percent or ppm-meters of carbon monoxide in the combusted gas immediately above the Combustion Zone

[OC] = Concentration in volume percent or ppm-meters of the sum of all organic carbon compounds in the combusted gas immediately above the Combustion Zone, counting each carbon molecule separately where the concentration of each individual compound is multiplied by the number of carbon atoms it contains before summing (*e.g.*, 0.1 volume percent ethane shall count as 0.2 percent OC because ethane has two carbon atoms)

For purposes of using the *CE* equation, the unit of measurement for CO_2, CO, and OC must be the same; that is, if "volume percent" is used for one compound, it must be used for all compounds. "Volume percent" cannot be used for one or more compounds and "ppm-meters" for the remainder.

Step 1: Determine the Net Heating Value of the Vent Gas (NHVvg)

The plant site shall determine the Net Heating Value of the Vent Gas (NHVvg) based on composition monitoring data on a 15-minute block average basis according to the following requirements. If the plant site monitors separate gas streams that combine to comprise the total Vent Gas flow to Flare X-901 (EPN 45), the 15-minute block average Net Heating Value shall be determined separately for each measurement location according to the following requirements 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 Vent Gas. The NHVvg 15-minute block averages shall be calculated for set 15-minute time periods starting at 12 midnight to 12:15 AM, 12:15 AM to 12:30 AM and so on, concluding at 11:45 PM to midnight.

Step 1a: Equation or Output to be Used to Determine NHVvg at a Measurement Location

For any gas stream for which the plant site complies with Special Condition 43 by collecting compositional analysis data in accordance with the method set forth in 43.a: Equation 1 shall be used to determine the NHVvg of a specific sample by summing the Net Heating Value for each individual component by individual component volume fractions. Individual component Net Heating Values are listed in Table 1 of this Appendix.

$$NHV_{vg} = \sum_{i=1}^{n} (x_i * NHV_i) \qquad \textit{Equation 1}$$

For any gas stream for which the plant site complies with Paragraph 43 by collecting direct Net Heating Value monitoring data in accordance with the method set forth in 43.b but for which a Hydrogen Concentration Monitor is not used: Use the direct output (measured value) of the monitoring system(s) (in BTU/scf) to determine the NHVvg for the sample.

For any gas stream for which the plant site complies with Paragraph 43 by collecting direct Net Heating Value monitoring data in accordance with the method set forth in 43.b and for which a Hydrogen Concentration Monitor is also used: Equation 2 shall be used to determine the NHVvg for each sample measured via the Net Heating Value monitoring system. Where hydrogen concentration data is collected, Equation 2 performs a net correction for the measured heating value of hydrogen since the theoretical Net Heating Value for hydrogen is 274 Btu/scf, but for the purposes of this permit, a Net Heating Value of 1,212 Btu/scf may be used (1,212 – 274 = 938 BTU/scf).

$$NHV_{vg} = NHV_{measured} + 983x_{H2} \qquad \textit{Equation 2}$$

Step 1b: Calculation Method to be Used in Applying Equation/Output to Determine NHVvg

For Flare X-901 for which the plant site complies with Paragraph 43 by using a continuous monitoring system in accordance with the method set forth in 43.a or 43.b: The plant site may elect to determine the 15-minute block average NHVvg using either the Feed- Forward Calculation Method or the Direct Calculation Method (both described below). The plant site need not elect to use the same methodology at all Flares with a continuous monitoring system; however, for each such Flare, the plant site must elect one calculation method that will apply at all times, and use that method for all continuously monitored flare vent streams associated with that Flare. If the plant site intends to change the calculation method that applies to a Flare, the plant site must notify the EPA 30 Days in advance of such a change.

Feed-Forward Calculation Method. When calculating NHVvg for a specific 15-minute block:

1. Use the results from the first sample collected during an event (for periodic Vent Gas flow events) for the first 15-minute block associated with that event.
2. If the results from the first sample collected during an event (for periodic Vent Gas flow events) are not available until after the second 15-minute block starts,

   use the results from the first sample collected during an event for the second 15- minute block associated with that event.
3. For all other cases, use the results that are available from the most recent sample prior to the 15-minute block period for that 15-minute block period for all Vent Gas streams. For the purpose of this requirement, use the time that the results become available rather than the time the sample was collected. For example, if a sample is collected at

12:25 AM and the analysis is completed at 12:38 AM, the results are available at 12:38 AM and these results would be used to determine compliance during the 15-minute block period from 12:45 AM to 1:00 AM.

Direct Calculation Method. When calculating NHVvg for a specific 15-minute block:

1. If the results from the first sample collected during an event (for periodic Vent Gas flow events) are not available until after the second 15-minute block starts, use the results from the first sample collected during an event for the first 15- minute block associated with that event.
2. For all other cases, use the arithmetic average of all NHVvg measurement data results that become available during a 15-minute block to calculate the 15-minute block average for that period. For the purpose of this requirement, use the time that the results become available rather than the time the sample was collected. For example, if a sample is collected at 12:25 AM and the analysis is completed at 12:38 AM, the results are available at 12:38 AM and these results would be used to determine compliance during the 15-minute block period from 12:30 AM to 12:45 AM.

Step 2: Determine Volumetric Flow Rates of Gas Streams

The plant site shall determine the volumetric flow rate in standard cubic feet (scf) of Vent Gas, along with the volumetric flow rates (in scf) of any Supplemental Gas, Assist Steam, and Premix Assist Air, over a 15-minute block average basis. The 15-minute block average volumetric flow rates shall be calculated for set 15-minute time periods starting at 12 midnight to 12:15 AM, 12:15 AM to 12:30 AM and so on, concluding at 11:45 PM to midnight.

For any gas streams for which the plant site complies with Special Condition 40 by using a monitoring system that directly records volumetric flow rate: Use the direct output (measured value) of the monitoring system(s) (in scf), as corrected for the temperature and pressure of the system to standard conditions (i.e., a temperature of 20 °C (68 °F) and a pressure of 1 atmosphere) to then calculate the average volumetric flow rate of that gas stream for the 15- minute block period.

For Vent Gas, Assist Steam, or Premix Assist Air gas streams for which the plant site complies with Special Condition 40 by using a mass flow monitor to determine volumetric flow rate: Equation 3 shall be used to determine the volumetric flow rate of Vent Gas, Assist Air, or Assist Steam by converting mass flow rate to volumetric flow at standard conditions (i.e., a temperature of 20 °C (68 °F) and a pressure of 1 atmosphere). Equation 3 uses the molecular weight of the gas stream as an input to the equation; therefore, if the plant site elects to use a mass flow monitor to determine volumetric flow rate of Vent Gas, the plant site must collect compositional analysis data for such Vent Gas in accordance with the method set forth in 55.a. For Assist Steam, use a molecular weight of 18 pounds per pound-mole. For Assist Air, use a molecular weight of 29 pounds per pound-mole. The converted volumetric flow rates at standard conditions from Equation 3 shall then be used to calculate the average volumetric flow rate of that gas stream for the 15-minute block period.

$$Qvol = \frac{Q_{mass} * 385.3}{MWt} \qquad \textit{Equation 3}$$

For gas streams for which the molecular weight of the gas is known and for which the plant site complies with Special Condition 40 by using continuous pressure/temperature monitoring system(s): Use appropriate engineering calculations to determine the average volumetric flow rate of that gas stream for the 15-minute block period. For Assist Steam, use a molecular weight of 18 pounds

per pound-mole. For Assist Air, use a molecular weight of 29 pounds per pound-mole. For Vent Gas, molecular weight must be determined by collecting compositional analysis data for such Vent Gas in accordance with the method set forth in 22.a.

Step 3: Calculate the Net Heating Value of the Combustion Zone Gas (NHVcz)

For Flare X-901 (EPN 45) at which: 1) the Feed- Forward Calculation Method is used; 2) gas composition or Net Heating Value monitoring is performed in a location representative of the cumulative vent gas stream; and 3) Supplemental Gas flow additions to the Flare are directly monitored: Equation 4 shall be used to determine the 15- minute block average NHVcz based on the 15-minute block average Vent Gas, Supplemental Gas, and assist gas flow rates.

$$NHV_{cz} = \frac{(Q_{vg}\ \ Q_{NG2} + Q_{NG1)} * NHV_{vg} + (Q_{NG2}\ \ Q_{NG1}) * NHV_{NG}}{Q_{vg} + Q_s + Q_{a,premix}} \qquad \textit{Equation 4}$$

For the first 15-minute block period of an event, Q_{NG1} shall use the volumetric flow value for the current 15-minute block period (i.e. $Q_{NG1} = Q_{NG2}$). NHV_{NG} shall be determined using one of the following methods: 1) direct compositional or Net Heating Value monitoring of the natural gas stream in accordance with Step 1; or 2) for purchased ("pipeline quality") natural gas streams, the plant site may elect to either: a) use annual or more frequent grab sampling at any one representative location; or b) assume a Net Heating Value of 920 BTU/scf.

For all other Flares: Equation 5 shall be used to determine the 15-minute block average NHVcz based on the 15-minute block average Vent Gas and assist gas flow rates. For periods when there is no Assist Steam flow or Premix Assist Air flow, NHVcz = NHVvg.

$$NHV_{cz} = \frac{Q_{vg} * NHV_{vg}}{Q_{vg} + Q_s + Q_{a,premix}} \qquad \textit{Equation 5}$$

Step 4: Calculate the Net Heating Value Dilution Parameter (NHV_{dil})

For Flare X-901 (EPN 45) at which: 1) the Feed- Forward Calculation Method is used; 2) gas composition or Net Heating Value monitoring is performed in a location representative of the cumulative Vent Gas stream; and 3) Supplemental Gas flow additions to the Flare are directly monitored: Equation 6 shall be used to determine the 15- minute block average NHVdil only during periods when Perimeter Assist Air is used. For 15- minute block periods when there is no cumulative volumetric flow of Perimeter Assist Air, the 15-minute block average NHVdil parameter does not need to be calculated.

$$NHV_{dil} = \frac{\left[\left(Q_{vg} - Q_{NG2} + Q_{NG1}\right) * NHV_{vg} + (Q_{NG2} - Q_{NG1}) * NHV_{NG}\right] * Diam}{(Q_{vg}+Q_s+Q_{a,premix} + Q_{a,perimeter})} \qquad \textit{Equation 6}$$

For the first 15-minute block period of an event, Q_{NG1} shall use the volumetric flow value for the current 15-minute block period (i.e. $Q_{NG1} = Q_{NG2}$). NHV_{NG} shall be determined using one of the following methods: 1) direct compositional or Net Heating Value monitoring of the natural gas stream in

accordance with Step 1; or 2) for purchased ("pipeline quality") natural gas streams, the plant site may elect to either: a) use annual or more frequent grab sampling at any one representative location; or b) assume a Net Heating Value of 920 BTU/scf.

For all other Flares: Equation 7 shall be used to determine the 15-minute block average NHV_{dil} based on the 15-minute block average vent gas and Perimeter Assist Air flow rates, only during periods when Perimeter Assist Air is used. For 15-minute block periods when there is no cumulative volumetric flow of Perimeter Assist Air, the 15- minute block average NHV_{dil} parameter does not need to be calculated.

$$NHV_{dil} = \frac{Q_{vg} * Diam * NHV_{vg}}{(Q_{vg} + Q_s + Q_{a,premix} + Q_{a,perimeter})} \qquad \textit{Equation 7}$$

Step 5: Ensure that during Flare operation, NHVcz ≥ 270 BTU/scf

The Flare must be operated to ensure that NHVcz is equal to or above 270 BTU/scf, as determined for each 15-minute block period when Supplemental, Sweep, and/or Waste Gas is routed to a Flare for at least 15-minutes. Equation 8 shows this relationship.

$$NHV_{cz} \geq 270\ BTU/scf \qquad \textit{Equation 8}$$

Step 6: Ensure that during Flare operation, NHVdil ≥ 22 BTU/ft^2

A Flare actively receiving Perimeter Assist Air must be operated to ensure that NHV_{dil} is equal to or above 22 BTU/ft^2, as determined for each 15-minute block period when Supplemental,

Sweep, and/or Waste Gas is routed to a Flare for at least 15-minutes. Equation 9 shows this relationship.

$$NHV_{dil} \geq 22\ BTU/ft^2 \qquad \textit{Equation 9}$$

Calculation Method for Determining Compliance with Vtip Operating Limits.

The plant site shall determine Vtip on a 15-minute Block Average basis according to the following requirements:

(a) The plant site shall use design and engineering principles and the guidance in Appendix 1.3 to determine the Unobstructed Cross Sectional Area of the Flare Tip. The Unobstructed Cross Sectional Area of the Flare Tip is the total tip area that Vent Gas can pass through. This area does not include any stability tabs, stability rings, and Upper Steam or air tubes because Vent Gas does not exit through them.

(b) The plant site shall determine the cumulative volumetric flow of Vent Gas for each 15- minute Block Average Period using the data from the continuous flow monitoring system required in Paragraph 52 according to the requirements in Step 2 above.

(c) The 15-minute Block Average Vtip shall be calculated using Equation 10.

$$V_{tip} = \frac{Q_{Cum}}{Area \times 900}$$ ***Equation 10***

(d) If the plant site chooses to comply with Paragraph 64.b, the site shall also determine the NHVvg using Step 1 above and calculate Vmax using Equation 11 in order to compare Vtip to Vmax on a 15-minute Block Average basis.

$$\log_{10}(V_{max}) = \frac{NHV_{vg} + 1{,}212}{850}$$ ***Equation 11***

Key to the Abbreviations:

385.3 = conversion factor (scf/ b-mol)

850 = Constant

900 = Conversion factor, (seconds / 15-minute block average) 1,212 = Constant

Area = The unobstructed cross sectional area of the flare tip is the total tip area that vent gas can pass through, ft2. This area does not include any stability tabs, stability rings, and upper steam or air tubes because flare vent gas does not exit through them. Use design and engineering principles to determine the unobstructed cross sectional area of the flare tip.

*Diam = Effective diameter of the unobstructed area of the flare tip for flare vent gas flow, ft. Determine the diameter as Diam = 2 * $\sqrt{Area \div rr}$*

i = individual component in Vent Gas (unitless)

MWt = molecular weight of the gas at the flow monitoring location (lb/ lb– mol)

n = number of components in Vent Gas (unitless)

NHV_{CZ} = Net Heating Value of Combustion Zone Gas (BTU/scf)

NHV_i = Net Heating Value of component i according to Table 1 of this Appendix (BTU/scf)

$NHV_{measured}$ = Net Heating Value of Vent Gas stream as measured by monitoring system (BTU/scf) NHVNG = Net Heating Value of Supplemental Gas to flare during the 15 minute block period (BTU/scf) NHVvg = Net Heating Value of Vent Gas (BTU/scf)

$Q_{a,perimeter}$ = cumulative vol flow of perimeter assist air during the 15 minute block period (scf) $Q_{a,premix}$ = cumulative vol flow of premix assist air during the 15 minute block period (scf)

Qcum = cumulative volumetric flow over 15-minute block average period (scf)

Q_{mass} = mass flow rate (pounds per second)

Q_{NG1} = cumulative vol flow of Supplemental Gas to flare during previous 15 minute block period (scf)

Q_{NG2} = cumulative vol flow of Supplemental Gas to flare during the 15 minute block period (scf)

Q_s = cumulative vol flow of Total Steam during the 15 minute block period (scf) Qvg = cumulative vol flow of Vent Gas during the 15 minute block period (scf) Qvol = volumetric flow rate (scf per second)

Vmax = Maximum allowed flare tip velocity (feet per second)

Vtip = Flare tip velocity (feet per second)

x_i = concentration of component i in Vent Gas (vol fraction)

x_{H2} = concentration of H_2 in Vent Gas at time sample was input into NHV monitoring system (vol fraction)

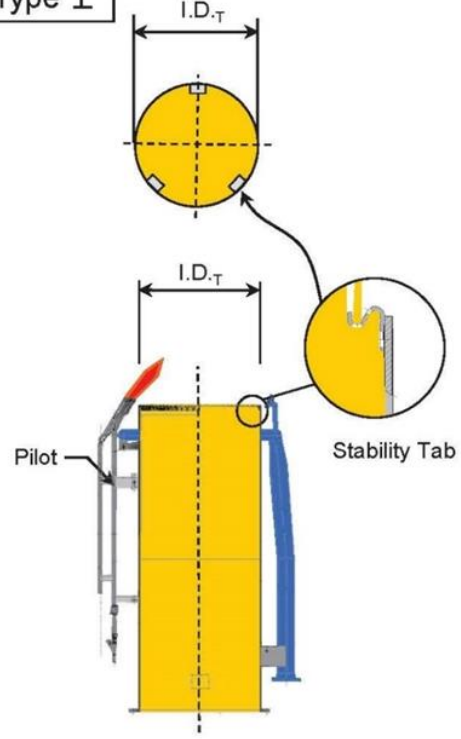
Table 1
Individual Component Properties

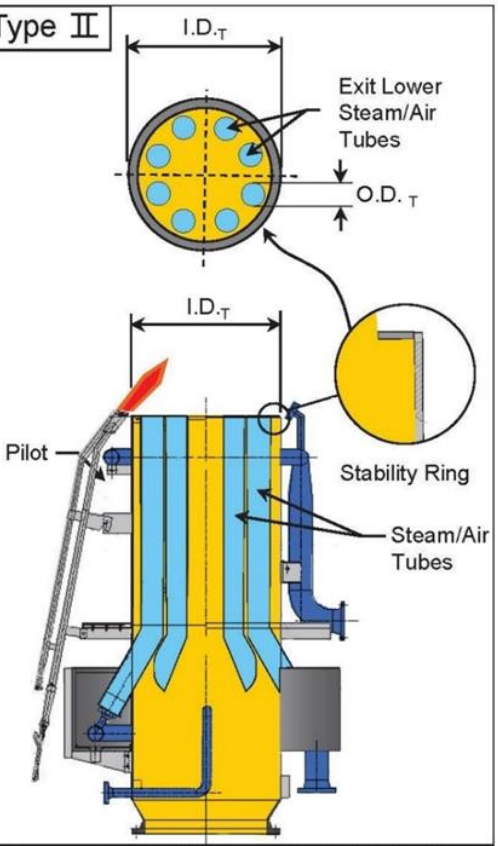
Component	Molecular Formula	MWi (pounds per pound-mole)	CMNi (mole per mole)	NHVi (British thermal units per standard cubic foot)	LFLi (volume %)
Acetylene	C_2H_2	26.04	2	1,404	2.5
Benzene	C_6H_6	78.11	6	3,591	1.3
1,2-Butadiene	C_4H_6	54.09	4	2,794	2.0
1,3-Butadiene	C_4H_6	54.09	4	2,690	2.0
iso-Butane	C_4H_{10}	58.12	4	2,957	1.8
n-Butane	C_4H_{10}	58.12	4	2,968	1.8
cis-Butene	C_4H_8	56.11	4	2,830	1.6
iso-Butene	C_4H_8	56.11	4	2,928	1.8
trans-Butene	C_4H_8	56.11	4	2,826	1.7
Carbon Dioxide	CO_2	44.01	1	0	∞
Carbon Monoxide	CO	28.01	1	316	12.5
Cyclopropane	C_3H_6	42.08	3	2,185	2.4
Ethane	C_2H_6	30.07	2	1,595	3.0
Ethylene	C_2H_4	28.05	2	1,477	2.7
Hydrogen	H_2	2.02	0	1,212[A]	4.0
Hydrogen Sulfide	H_2S	34.08	0	587	4.0
Methane	CH_4	16.04	1	896	5.0
Methyl-Acetylene	C_3H_4	40.06	3	2,088	1.7
Nitrogen	N_2	28.01	0	0	∞
Oxygen	O_2	32.00	0	0	∞
Pentane+ (C5+)	C_5H_{12}	72.15	5	3,655	1.4
Propadiene	C_3H_4	40.06	3	2,066	2.16
Propane	C_3H_8	44.10	3	2,281	2.1
Propylene	C_3H_6	42.08	3	2,150	2.4
Water	H_2O	18.02	0	0	∞

[A] The theoretical Net Heating Value for hydrogen is 274 Btu/scf, but for the purposes of this Permit, a Net Heating Value of 1,212 Btu/scf shall be used.

Note: If a component is not specified in this Table 1, the heats of combustion may be determined using any published values where the net enthalpy per mole of offgas is based on combustion at 25 °C and 1 atmosphere (or constant pressure) with offgas water in the gaseous state, but the standard temperature for determining the volume corresponding to one mole of vent gas is 20 °C.

Appendix 1.3 - Calculating the Unobstructed Cross Sectional Area of Various Types of Flare Tips

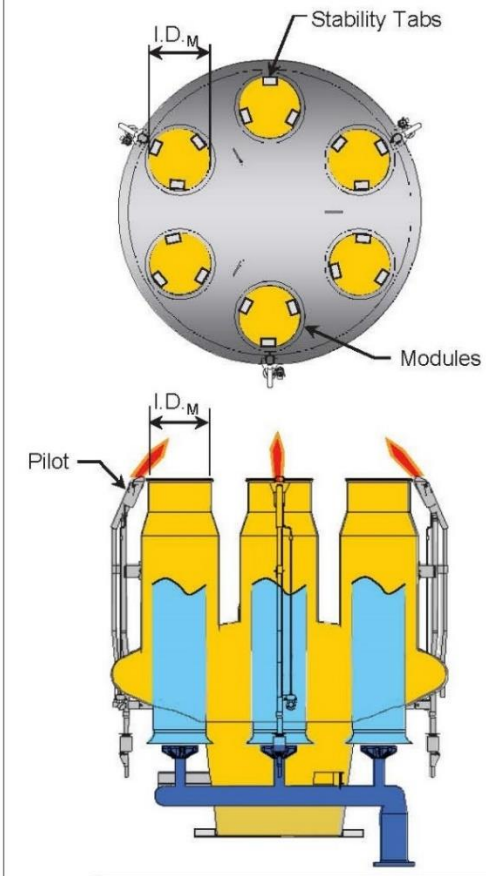
<table>
<tr>
<td>Type I
 

$A_{tip\text{-}unob} = \pi(I.D._T)^2/4 - (X_T * A_{ST})$</td>
<td>Type II
 

$A_{tip\text{-}unob} = \pi(I.D._T)^2/4 - A_{ST} - N_T * \pi * (O.D._T)^2/4$</td>
</tr>
<tr>
<td>Where: $A_{tip\text{-}unob}$ = Unobstructed Cross Sectional Area of Flare Tip
$I.D._T$ = Inside Diameter Flare Tip
X_T = Number of Stability Tabs
A_{ST} = Area of a Stability Tab</td>
<td>Where: $A_{tip\text{-}unob}$ = Unobstructed Cross Sectional Area of Flare Tip
$I.D._T$ = Inside Diameter Flare Tip
A_{ST} = Area of Stability Ring
$O.D._T$ = Outside Diameter of Steam/Air Tubes
N_T = Number of Steam/Air Tubes</td>
</tr>
<tr>
<td>Example: $I.D._T$ = 41.5 inches
X_T = 3
A_{ST} = 3 Sq. inches</td>
<td>Example: $I.D._T$ = 47.5 inches
A_{ST} = 100 Sq. inches
$O.D._T$ = 6.5 inches
N_T = 8</td>
</tr>
<tr>
<td>$A_{tip\text{-}unob} = \pi(41.5)^2/4 - (3 * 3)$
$A_{tip\text{-}unob}$ = 1344 Sq. inches</td>
<td>$A_{tip\text{-}unob} = \pi\ (47.5)^2/4 - 100 - 8 * \pi * (6.5)^2/4$
$A_{tip\text{-}unob}$ = 1322 Sq. inches</td>
</tr>
</table>

Appendix 1.3 - Calculating the Unobstructed Cross Sectional Area of Various Types of Flare Tips

Type III



$$A_{tip\text{-}unob} = N_M * (\pi * (I.D._M)^2/4 - X_T * A_{ST})$$

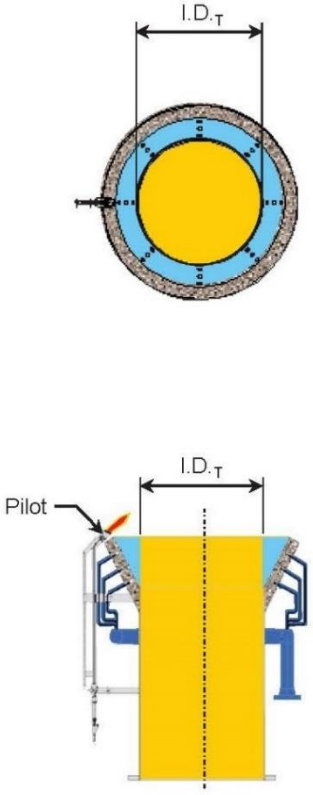
Where:
- $A_{tip\text{-}unob}$ = Unobstructed Cross Sectional Area of Flare Tip
- $I.D._M$ = Inside Diameter of One Tip Module
- N_M = Number of Modules
- X_T = Number of Stability Tabs per Module
- A_{ST} = Area of a Stability Tab

Example:
- $I.D._M$ = 17 inches
- N_M = 6
- X_T = 3
- A_{ST} = 3 Sq. inches

$$A_{tip\text{-}unob} = 6 * (\pi * (17)^2/4 - 3 * 3)$$

$A_{tip\text{-}unob}$ = 1308 Sq. inches

Type IV



$$A_{tip\text{-}unob} = \pi (I.D._T)^2/4$$

Where:
- $A_{tip\text{-}unob}$ = Unobstructed Cross Sectional Area of Flare Tip
- $I.D._T$ = Inside Diameter of Flare Tip

Example:
- $I.D._T$ = 41.5 inches

$$A_{tip\text{-}unob} = \pi (41.5)^2/4$$

$A_{tip\text{-}unob}$ = 1353 Sq. inches

Appendix 2.1 - February 5, 2018, Johnson Letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

Mr. Chuck DeCarlo
Marketing Manager
Extrel CMS, LLC
575 Epsilon Drive, Suite 2
Pittsburg, PA 15238-2838

FEB 05 2018

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Mr. Tony Slapikas
Product Manager for Mass Spectrometry
AMETEK, Energy & Process Division
150 Freeport Road
Pittsburgh, PA 15238

Dear Mr. DeCarlo and Mr. Slapikas,

I am writing in response to your letter dated August 18, 2017, requesting approval for use of process mass spectrometers as part of an alternative to testing procedures utilizing calorimeters or gas chromatographs to measure Net Heating Value (NHV_{VG}) in flare vent gas as required under 40 CFR Part 63, Subpart CC – National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries. The owner or operator of facilities subject to Subpart CC must measure flare vent gas composition to determine NHV_{VG} in units of British Thermal Units per standard cubic foot (BTU/SCF). This BTU/SCF determination may be performed using a calorimeter capable of continuously measuring, calculating, and recording NHV_{VG} at standard conditions (40 CFR 63.670 (j)(3)) or equipment that determines the concentration of individual components in the flare vent gas (40 CFR 63.670 (j)(1)), such as a gas chromatograph, and, if desired, may directly measure the hydrogen concentration in the flare vent gas following the methods provided in 40 CFR 63.670 (j)(4). All monitoring equipment must meet the applicable minimum accuracy, calibration and quality control requirements specified in Table 13 and §63.671 of Subpart CC.

In your letter, you propose to use a process mass spectrometer analyzer and the following measurement approach as an alternative to measure NHV_{VG}:

1) The owner or operator of the affected facility will perform a pre-survey to determine the list and concentration of components that are present in flare vent gas feed. This pre-survey will be used in part to:
   a) Determine an appropriate analysis method for the site-specific refinery flare vent gas;
   b) Create a list of vent gas components to be included in calibration gas cylinders to be used to evaluate the quality of the measurement procedure used to determine NHV_{VG};
   c) Define calibration standards to be prepared by a vendor at a certified accuracy of 2 percent and traceable to NIST; and
   d) Perform an initial calibration to identify mass fragment overlap and response factors for the target compounds.

Appendix 2.1 - February 5, 2018, Johnson Letter

2) The process mass spectrometer will be calibrated using calibration gas standards consisting of a mix of the compounds identified in the site specific flare gas pre-survey.
3) During flare gas analysis, compounds that are not identified during the pre-survey and that have mass fragments identical to the compounds found during the pre-survey will be included in the calculation of NHV_{VG}.
4) Calibration error (CE) for each component in the calibration blend will be calculated using the following equation:

$$CE = \frac{C_m - C_a}{C_a} x\ 100$$

Where :

C_m = Average instrument response, (ppm)
C_a = Cylinder gas value or tag value, (ppm)

5) The average instrument CE for each calibration compound at any calibration concentration must not differ by more than 10 percent from the cylinder gas value or tag value.
6) For each set of triplicate injections at each calibration concentration for each calibration compound, any one introduction shall not deviate more than 5 percent from the average concentration measured at that level.

Your supporting information included Method 301 calculations that showed acceptable bias and precision when you measured a mixture of gases from a vendor certified gas cylinder. Your request also includes reference to facilities needing to monitor flare gas composition continuously to effectively maintain flare efficiency while compensating for changes in the flare gas composition.

With this letter, we are approving your request to substitute continuous process mass spectrometry for continuous gas chromatography as allowed in 40 CFR 63.670 and 63.671 predicated on both your proposed use of these process mass spectrometers as described above and the additional provisos listed below:

1) You must meet the requirements in 40 CFR 63.671 (e)(1) and (2) including Table 13 requirements for Net Heating Value by Gas Chromatograph.
2) You may use the alternative sampling line temperature allowed in 40 CFR 63, Subpart CC, Table 13, under Net Heating Value by Gas Chromatograph.
3) You must meet applicable Performance Specification 9 (40 CFR part 60, appendix B) requirements for initial continuous monitoring system acceptance including, but not limited to:
    - Performing a multi-point calibration check at three concentrations following the procedure in Section 10.1; and
    - Performing periodic process mass spectrometer calibrations as directed for gas chromatographs in 40 CFR 63, Subpart CC, Table 13.
4) You may augment the minimum list of calibration gas components found in 40 CFR 63.671(e) with compounds found during the pre-survey as needed to develop a site-specific analysis method.

Appendix 2.1 - February 5, 2018, Johnson Letter

5) For unknown gas components that have similar analytical mass fragments to calibration compounds, you may report the unknowns as an increase in the overlapped calibration gas compound.
6) For unknown compounds that do not produce mass fragments that overlap calibration compounds, you may use the response factor for the nearest molecular weight hydrocarbon in the calibration mix to quantify the unknown component's NHV_{VG}. This requirement parallels the requirements in 40 CFR Part 63.671 (e)(3) for gas chromatographs.
7) You may use the response factor for n-pentane to quantify any unknown components detected with a higher molecular weight than n-pentane.
8) You must meet all other applicable generic requirements of §§63.670 and 63.671 for measurement of NHV_{VG} (i.e., measurement requirements not specifically targeted to gas chromatographs).
9) A copy of this approval letter must be included in the report for each testing program where these alternative testing procedures are applied.

Since this alternative test method approval under 40 CFR 63.7 (f) is appropriate for use at all facilities subject to 40 CFR 63, Subpart CC, we will announce on EPA's Web site (*https://www.epa.gov/emc/broadly-applicable-approved-alternative-test-methods*) that the alternative method is broadly applicable to determination of NHV_{VG} under this subpart.

If you have any questions regarding this approval or need further assistance, please contact Ray Merrill at (919) 541-5225 or *merrill.raymond@epa.gov*, or Robin Segall at (919) 541-0893 or *segall.robin@epa.gov*.

Sincerely,

Robin R. Segall for SMJ

Steffan M. Johnson, Group Leader
Measurement Technology Group

cc.
Gerri Garwood, EPA/OAQPS/SPPD
Maria Malave, EPA/OECA/OC
Brenda Shine, EPA/OAQPS/SPPD
EPA Regional Testing Contacts

Emission Sources - Maximum Allowable Emission Rates Before Production Expansion (7)

Permit Numbers 2462C and N294

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)
F-75 (5)	Process Fugitives	VOC	13.50	59.12
F-04 (5)	Pellet Losses	VOC	52.30	78.30
F-05	Catalyst Mix and Holding Tanks	VOC	1.89	0.20
1592-42	Holding Pond	VOC	0.01	0.01
25	F-355 Bagfilter	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-4C	F-376 Baghouse	PM	0.02	0.05
		PM_{10}	0.02	0.05
		$PM_{2.5}$	0.02	0.05
1792-4F	F-365 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-4G	F-366 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-4H	F-367 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-4J	F-356 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-15	F-394 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02

Emission Sources - Maximum Allowable Emission Rates Before Production Expansion (7)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1792-16	F-395 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-17	F-396 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-18	F-397 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-21	F-312 Bagfilter	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-22	F-315 Bagfilter	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-23	F-320 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
26	H-602 Hot Oil Heater	CO	1.80	6.50
		NO_X	1.32	2.87
		PM	0.16	0.59
		PM_{10}	0.16	0.59
		$PM_{2.5}$	0.16	0.59
		SO_2	0.01	0.05
		VOC	0.12	0.43
45	X-901 Flare - Normal Operation and MSS combined	CO	83.14	54.15
		NO_X	16.18	9.43
		SO_2	0.45	0.84
		VOC	92.11	19.81

Emission Sources - Maximum Allowable Emission Rates Before Production Expansion (7)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1792-4B	H-3030 Catalytic Oxidizer	CO	5.55	24.30
		NO_X	1.11	4.86
		PM	0.09	0.12
		PM_{10}	0.09	0.12
		$PM_{2.5}$	0.09	0.12
		SO_2	0.01	0.03
		VOC	3.12	9.85
1792-4M (6)	Downtime of H-3030	VOC	35.00	3.36
1792-35	Line 1 Pellet Dryer	VOC	0.68	2.99
1792-36	Line 2 Pellet Dryer	VOC	0.68	2.99
1792-37	Line 3 Pellet Dryer	VOC	0.68	2.99
1792-38	Line 4 Pellet Dryer	VOC	0.68	2.99
1792-39	Line 5 Pellet Dryer	VOC	0.89	3.88
1792-40	Line 6 Pellet Dryer	VOC	0.89	3.88
1792-43	P-930 Stormwater Pump Engine	CO	1.50	0.06
		NO_X	6.98	0.29
		PM	0.50	0.02
		PM_{10}	0.50	0.02
		$PM_{2.5}$	0.50	0.02
		SO_2	0.46	0.02
		VOC	0.56	0.02
1792-76	Cooling Tower	PM	0.38	1.66
		PM_{10}	0.38	1.66
		$PM_{2.5}$	0.38	1.66
		VOC	1.58	1.65
LL03	Slop Oil Loading	VOC	3.16	0.08
03	Spent Solvent Tank	VOC	3.06	0.09
28	Solvent Rundown Tank	VOC	3.24	0.04
29	Solvent Holding Tank	VOC	3.24	0.08
30	Methanol Tank	VOC	17.29	0.26

Emission Sources - Maximum Allowable Emission Rates Before Production Expansion (7)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1792-11	Solvent Storage Tank	VOC	3.24	0.18
1792-47	API Skim Tank	VOC	1.01	0.20
31	Chilled Water Methanol	VOC	1.44	0.20
1792-42	Diesel Fuel Tank	VOC	0.29	0.02
1792-44	Diesel Fuel Tank	VOC	0.29	0.02
1792-45	Stormwater Holding Tank	VOC	0.14	0.02
1792-46	API Separator	VOC	0.58	2.54
1792-48	Stormwater Holding Pond	VOC	0.01	0.01
1792-50	De-Ethanizer Blowdown Drum	VOC	1.62	0.59
1792-51	De-Propanizer Blowdown Drum	VOC	1.62	0.59

(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
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
(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) Maintenance Operations shall be limited to 480 hours per 12 month rolling period.
(7) The MAERT limits are applicable only to the pre-expansion configuration. After completion of construction and commencement of all expanded line operations, the holder of this permit shall submit a permit action to remove the MAERT limits through the appropriate permitting mechanism as required in Special Condition No. 3.

Date: August 11, 2023

Emission Sources - Maximum Allowable Emission Rates After Production Expansion (7)

Permit Numbers 2462C and N294

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)
F-75 (5)	Process Fugitives	VOC	14.18	62.09
F-05	Catalyst Mix and Holding Tanks	VOC	1.89	0.35
1592-42	Holding Pond	VOC	0.01	0.01
1792-4C	F-376 Baghouse	PM	0.02	0.05
		PM_{10}	0.02	0.05
		$PM_{2.5}$	0.02	0.05
1792-4F	F-365 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-4G	F-366 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-4H	F-367 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-4J	F-356 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-15	F-394 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-16	F-395 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02

Emission Sources - Maximum Allowable Emission Rates After Production Expansion (7)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
1792-17	F-396 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-18	F-397 Baghouse	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-21	F-312 Bagfilter	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-22	F-315 Bagfilter	PM	0.01	0.02
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.02
1792-23	F-320 Baghouse	PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
26	H-602 Hot Oil Heater	CO	1.80	6.50
		NO_X	1.32	2.87
		PM	0.16	0.59
		PM_{10}	0.16	0.59
		$PM_{2.5}$	0.16	0.59
		SO_2	0.01	0.05
		VOC	0.12	0.43
45	X-901 Flare - Normal Operation and MSS combined	CO	83.14	54.15
		NO_X	16.18	9.43
		SO_2	0.45	0.84
		VOC	92.11	19.81

Emission Sources - Maximum Allowable Emission Rates After Production Expansion (7)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
ROX-1	Regenerative Thermal Oxidizer (RTO)	CO	2.50	6.57
		NO_X	1.13	2.96
		PM	0.21	0.55
		PM_{10}	0.21	0.55
		$PM_{2.5}$	0.21	0.55
		SO_2	0.38	1.00
		VOC	1.00	2.70
ROX-DT (6)	Downtime of ROX-1	VOC	85.00	3.38
		PM	0.03	<0.01
		PM_{10}	0.03	<0.01
		$PM_{2.5}$	0.03	<0.01
F-04	Pellet Losses	VOC	10.00	-
1792-35	Line 1 Pellet Dryer	VOC	1.08	-
1792-36	Line 2 Pellet Dryer	VOC	1.36	-
1792-37	Line 3 Pellet Dryer	VOC	0.95	-
1792-38	Line 4 Pellet Dryer	VOC	0.86	-
1792-39	Line 5 Pellet Dryer	VOC	1.36	-
1792-40	Line 6 Pellet Dryer	VOC	1.58	-
PELLET	EPNs F-04, and 1792-35 through 1792-40	VOC	-	56.04
1792-43	P-930 Stormwater Pump Engine	CO	1.50	0.06
		NO_X	6.98	0.29
		PM	0.50	0.02
		PM_{10}	0.50	0.02
		$PM_{2.5}$	0.50	0.02
		SO_2	0.46	0.02
		VOC	0.56	0.02
1792-76	Cooling Tower	PM	0.38	1.44
		PM_{10}	0.38	1.44
		$PM_{2.5}$	0.38	1.44
		VOC	1.58	2.96

Emission Sources - Maximum Allowable Emission Rates After Production Expansion (7)

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
LL03	Slop Oil Loading	VOC	3.85	0.20
03	Spent Solvent Tank	VOC	3.06	0.11
28	Solvent Rundown Tank	VOC	3.24	0.06
29	Solvent Holding Tank	VOC	3.24	0.08
30	Methanol Tank	VOC	17.29	0.26
1792-11	Solvent Storage Tank	VOC	3.24	0.18
1792-47	API Skim Tank	VOC	1.01	0.20
31	Chilled Water Methanol	VOC	1.44	0.20
1792-42	Diesel Fuel Tank	VOC	0.29	0.02
1792-44	Diesel Fuel Tank	VOC	0.29	0.02
1792-45	Stormwater Holding Tank	VOC	0.14	0.02
1792-46	API Separator	VOC	0.58	2.54
1792-48	Stormwater Holding Pond	VOC	0.01	0.01
1792-50	De-Ethanizer Blowdown Drum	VOC	1.62	0.59
1792-51	De-Propanizer Blowdown Drum	VOC	1.62	0.59

(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
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
(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) Regenerative Thermal Oxidizer Downtime, EPN ROX-DT, as described in Special Condition No. 13, is limited to 100 hours per 12 month rolling period.
(7) The MAERT limits are applicable to the production expansion of the Polyethylene (PEU) Unit 1792 that was represented in the permit amendment application, PI-1 dated July 1, 2015 (TCEQ Project No. 238272) and subsequent updates, and the as-built amendment application, PI-1 dated March 31, 2020 (TCEQ Project No. 314315) and subsequent updates.

Date: January 10, 2024

Texas Commission on Environmental Quality
Air Quality Permit

A Permit Is Hereby Issued To
Chevron Phillips Chemical Company LP
Authorizing the Construction and Operation of
Chevron Phillips Chemical Cedar Bayou Plant
Located at **Baytown, Harris County, Texas**
Latitude 29.826388 Longitude -94.919444

Permit: 135086 and N224

Revision Date: September 28, 2023

Expiration Date: May 13, 2026

For the Commission

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

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

8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] [1]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. [1]

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

Common Acronyms in Air Permits

°C = Temperature in degrees Celsius
°F = Temperature in degrees Fahrenheit
°K = Temperature in degrees Kelvin
µg = microgram
$\mu g/m^3$ = 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
H_2CO = formaldehyde
H_2S = hydrogen sulfide
H_2SO_4 = 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 H_2O = 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
m^3 = 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 PM_{10} and $PM_{2.5}$, as represented
$PM_{2.5}$ = particulate matter equal to or less than 2.5 microns in diameter
PM_{10} = 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
SO_2 = 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 No. 135086 and N224

Emission Standards

1. This permit authorizes emissions from those points listed in the attached table entitled “Emission Sources - Maximum Allowable Emission Rates” (MAERT) and the facilities covered by this permit are authorized to emit subject to the emission rate limits on the MAERT and other requirements specified in the special conditions. The annual rates are based on any consecutive 12-month period unless otherwise noted.

   Planned startup and shutdown emissions due to the activities identified in Special Condition 2 are authorized from facilities and emission points identified in Attachment A in other construction permits at the site, provided the facilities, activities, and emissions are compliant with the respective MAERT and special conditions.

2. This permit authorizes the emissions from the facilities identified in Attachment A for the planned maintenance, startup, and shutdown (MSS) activities for venting and control of purge gas streams summarized in the MSS Activity Summary (Attachment B) attached to this permit.

   Transfer of materials through existing piping/fugitive components and additional planned MSS activities not identified in Attachments A or B, and the associated emissions, shall comply with the construction permits at the site or other applicable authorizations for the identified units as follows: **(09/23)**

Unit Name	Flare	Associated Ch 116 Permit
PEU-1792	X-901	2462C
PEU-1796	FS-541	19027
PEU-1799	FS-9006	46305
NAO-1797	Z-101	37063
NAO-1798	Z-1101	
HU-1891	Z-251	

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 VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006.

   C. Subpart DDD, Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.

   D. Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.

   E. Subpart RRR, Standards of Performance for Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes.

4. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63:

   A. Subpart A, General Provisions.

   B. Subpart SS, National Emission Standards for Hazardous Air Pollutants: Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process.

   C. Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.

Operational Specifications

5. For the purge gas stream routing scenarios identified in Attachment B, all streams shall be vented to flare as listed.

6. Flares X-901, FS-541, FS-9006, Z-101, Z-1101, and Z-251, including any temporary flares used in place of a specified flare, shall be designed and operated in accordance with the authorization for the flare as specified in Special Condition 2. **(09/23)**

Compliance Assurance Monitoring

7. The following requirements apply to capture systems for all flares and planned MSS authorized by this permit:

   A. 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 the flares listed in Attachment A. To control pollutants other than particulate:

(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 parts per million by volume (ppmv) above background; or,

(3) Maintain the capture system under negative pressure at all times, verified and recorded weekly with a pressure measurement device.

For unsafe-to-inspect parts of a closed vent systems the applicant shall maintain a written plan, available at the site and upon request, for inspecting the equipment as frequently as practicable during safe-to-inspect conditions. The plan shall identify and explain the inherent dangers associated with of all parts of the closed vent system that are designated as unsafe. Inspection is not required more than once in any 12-month period.

B. If there is a bypass for the flares listed in Attachment A, comply with either of the following requirements:

All bypasses for the flares listed in Attachment A shall:

(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 per this permit.

C. Records of the required inspections shall be maintained. If the result of any of the inspections is not satisfactory, the permit holder shall promptly take necessary corrective action.

Recordkeeping

8. Records shall be maintained indicating that the start and end times of each of the activities identified in Attachment B and documentation that the requirements of these special conditions and emission limitations have been satisfied. Total emissions should be summed for each activity using the flow and VOC analyzer data collected under Special Condition No. 6. Records shall be retained for no less than five (5) years.

Offsets

9. This Nonattainment New Source Review (NNSR) permit is issued/approved based on the requirement that the permit holder offset the project emission increase for facilities authorized by this permit prior to the commencement of operation, through participation in the TCEQ Emission

Banking and Trading (EBT) Program in accordance with the rules in 30 TAC Chapter 101, Subchapter H, including time frames.

10. The permit holder shall use 44.7 tons per year (tpy) of VOC credits (Emission Reduction Credits and/or Discrete Emission Reduction Credits) to offset the 34.4 tpy VOC project emission increase for the facilities authorized by this permit at a ratio of 1.3 to 1.0. The total amount of offsets are required during any calendar year when the permitted activities occur. No offsets are required for any calendar year when the permitted activities do not occur. Credits need to be provided and approved in advance of the activities.

11. Prior to the commencement of operation, the permit holder shall obtain approval from the TCEQ EBT Program for the credits being used and then submit a permit alteration or amendment request to the TCEQ Air Permits Division (and copy the TCEQ Regional Office) to identify approved credits by TCEQ credit certificate number.

    A. For the period between September 1st, 2016 to December 31st, 2016, 44.7 tons of DERCs from credit certificate No. D3247 will be used to meet the requirement of Special Condition No. 10.

    B. For the period between October 12th, 2017 to December 31st, 2017, 44.7 tons of DERCs from credit certificate No. D3340 will be used to meet the requirement of Special Condition No. 10. **(12/17)**

12. In addition to, or in place of, using credits as described in Special Condition Number 9, the permit holder may use up to 44.7 tpy of Highly Reactive Volatile Organic Compounds Emission Cap and Trade (HECT) allowances to offset the 34.4 tpy VOC project emission increase for the following HECT facilities authorized by this permit at a ratio of 1.3 to 1.0: **(09/23)**

    A. FIN X-901 EPN 45

    B. FIN FS-541, EPN 1796-10A

    C. FIN FS-9006, EPN 1799-20

    D. FIN Z-101, EPN 110

    E. FIN Z-1101, EPN 1798-22

    F. FIN Z-251, EPN 129

Date: September 28, 2023

MSS Facilities Summary

Attachment A

Permit 135086, N224

This permit authorizes planned MSS emissions from purge gases from the permanent site facilities identified below.

Unit Name * / Facility Identification No. (FIN)	**Associated Permit No.**	**Flare Identification**	**Flare FIN / Emission Point No. (EPN)**
PEU-1792/P-1792	2462C	X-901	X-901/45
PEU-1796/P-1796	19027	FS-541	FS-541/1796-10A
PEU-1799/P-1799	46305	FS-9006	FS-9006/1799-20
NAO-1797/P-1797	37063, N178	Z-101	Z-101/110
NAO-1798/P-1798	37063, N178	Z-1101	Z-1101/1798-22
HU-1891/P-1891	37063, N178	Z-251	Z-251/129

* Abbreviations:

PEU - Polyethylene Units
NAO - Normal Alpha Olefins Units
HU - 1-Hexene Unit

Date: September 28, 2023

MSS Activities Summary

Attachment B

Permit 135086, N224

Scenario No.	Description	Facilities	Vented/Control
1	All unit purge gas streams vent to their specific unit flares	*See Attachment A*	*See Attachment A*
2	PEU all vent to designated flare	PEU-1792, PEU-1796, PEU-1799	FS-541
	NAO and HU vent to specific unit flares	*See Attachment A*	*See Attachment A*
3	PEU all vent to designated flare	PEU-1792, PEU-1796, PEU-1799	X-901
	NAO and HU vent to specific unit flares	*See Attachment A*	*See Attachment A*
4	One NAO vent to specific unit flare	NAO-1798	Z-1101
	All other units vent to designated flare	PEU-1792, PEU-1796, PEU-1799, NAO-1797, HU-1891	Z-101

NOTE: The production units with purge gas streams will continue to operate normally and during the periods when purge gas streams are being flared as authorized by this permit.

Date: May 13, 2016

Emission Sources - Maximum Allowable Emission Rates

Permit Number 135086 & N224

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4)	TPY (5)
1796-10A 1798-22 1799-20 45 110 129	Flare Group (6) FS-541 Z-1101 FS-9006 X-901 Z-101 Z-251	VOC	135.62	34.33
		NOx	16.04	4.06
		CO	103.91	26.30

(1) Emission point identification - either specific equipment designation or emission point number (EPN) from plot plan.
(2) Specific point source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
CO - carbon monoxide
(4) Compliance with hourly emission limits (pounds per hour) is in addition to emissions authorized by Permit Nos. 2462C, 19027, 46305, and 37063 for the listed EPNs.
(5) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period and is in addition to emissions authorized by Permit Nos. 2462C, 19027, 46305, and 37063 for the listed EPNs
(6) Purge gas may be vented to a combination of one or more flares in the designated group as described in Special Conditions Attachment B and permit application representations.

Date: September 28, 2023