FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

INEOS USA LLC

AUTHORIZING THE OPERATION OF

Polypropylene Units
Industrial Organic Chemicals

LOCATED AT

Brazoria County, Texas

Latitude 29° 13' 28" Longitude 95° 11' 51"

Regulated Entity Number: RN100238708

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: O1353 Issuance Date: October 1, 2013

For the Commission

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General Terms and Conditions

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

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

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

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

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

Special Terms and Conditions:
Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:

    A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.

    B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.

E. Emission units subject to 40 CFR Part 63, Subpart ZZZZ as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.1090 which incorporates the 40 CFR Part 63 Subpart by reference.

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

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

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

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

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

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

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

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

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

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

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

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

(v) Title 30 TAC § 101.358 (relating to Emission Monitoring and Compliance Demonstration)

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

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

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

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

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

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

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

(iv) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

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

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

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

(i) Title 30 TAC § 101.392 (relating to Exemptions)

(ii) Title 30 TAC § 101.401 (relating to Level of Activity Certification)

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

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

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

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

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

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

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

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

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

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

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

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

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

(i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(1)(E)

(iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)

(iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_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) 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. 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.

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:

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

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

   C. Title 30 TAC § 115.147(1) (relating to Exemptions)

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

6. 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.

7. 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).

8. 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)

9. 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)

10. 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.

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

Additional Monitoring Requirements

12. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:

A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).

B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the

requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time 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. Except for emission units using a CEMS, COMS or PEMS which meets the requirements of 40 CFR § 64.3(d)(2), the permit holder shall comply with either of the following requirements for any particulate matter capture system associated with the control device subject to CAM. If the results of the following inspections indicate that the capture system is not working properly, the permit holder shall promptly take necessary corrective action:

(i) Once per year the permit holder shall inspect any fan for proper operation and inspect the capture system used in compliance of CAM for cracks, holes, tears, and other defects; or

(ii) Once per year, the permit holder shall inspect for fugitive emissions escaping from the capture system in compliance of CAM by performing a visible emissions observation for a period of at least six minutes in accordance with 40 CFR Part 60, Appendix A, Test Method 22.

F. Except for emission units using a CEMS, COMS or PEMS which meets the requirements of 40 CFR § 64.3(d)(2), 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.

G. 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.

New Source Review Authorization Requirements

13. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:

A. Are incorporated by reference into this permit as applicable requirements

B. Shall be located with this operating permit

C. Are not eligible for a permit shield

14. 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.

15. 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, material safety data sheets (MSDS), 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.

A. If applicable, monitoring of control device performance or general work practice standards shall be made in accordance with the TCEQ Periodic Monitoring Guidance document.

B. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

16. 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.

17. 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.

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

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

        (i) Title 30 TAC Chapter 115

        (ii) Title 30 TAC Chapter 117

        (iii) Offsets for Title 30 TAC Chapter 116

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

        (i) The permit holder must notify the TCEQ according to 30 TAC § 101.306(c)(2)

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

(iii) The executive director has approved the use of the credit according to 30 TAC § 101.306(c)(2)

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

19. Use of Discrete Emission Credits to comply with the applicable requirements:

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

(i) Title 30 TAC Chapter 115

(ii) Title 30 TAC Chapter 117

(iii) If applicable, offsets for Title 30 TAC Chapter 116

(iv) Temporarily exceed state NSR permit allowables

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

(i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)

(ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4

(iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)

(iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

Risk Management Plan

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

Protection of Stratospheric Ozone

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

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

Permit Location

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

Permit Shield (30 TAC § 122.148)

23. 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 (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/ Inclusive Units	SOP Index No.	Regulation	Requirement Driver
EMERGEN	SRIC Engines	N/A	R117-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
EMERGEN	SRIC Engines	N/A	63ZZZZ-1	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
GD-1401	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
GD-1401	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
MD-1401	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
MD-1401	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
P2FLARE	Flares	N/A	R111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
P2FLARE	Flares	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
P2FLARE	Flares	N/A	60A-1	40 CFR Part 60, Subpart A	No changing attributes.
P3CONBF	Emission Points/ Stationary Vents/ Process Vents	N/A	R111-1	30 TAC Chapter 111, Nonagricultural Processes	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/ Inclusive Units	SOP Index No.	Regulation	Requirement Driver
P3CONBF	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
P3CWT	Industrial Process Cooling Towers	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Cooling Towers	FLOW MONITORING/TESTING METHOD = Choosing to use a continuous flow monitor on each inlet of each cooling tower in accordance with § 115.764(a)(1), (b)(1), or (h)(1).
P3CWT	Industrial Process Cooling Towers	N/A	R115-HR2	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).
P3PELDRYER	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
P3PELDRYER	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
P3PELFLTR	Emission Points/ Stationary Vents/ Process Vents	N/A	R111-1	30 TAC Chapter 111, Nonagricultural Processes	No changing attributes.
P3PELFLTR	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/ Inclusive Units	SOP Index No.	Regulation	Requirement Driver
P-3POLY	Flares	N/A	R111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
P-3POLY	Flares	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
P-3POLY	Flares	N/A	60A-1	40 CFR Part 60, Subpart A	No changing attributes.
P3VALVEFUG	Fugitive Emission Units	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Fugitive Emissions	No changing attributes.
P3VALVEFUG	Fugitive Emission Units	N/A	R115-1	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	No changing attributes.
P3VALVEFUG	Fugitive Emission Units	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
P3VALVEFUG	Fugitive Emission Units	N/A	61J-1	40 CFR Part 61, Subpart J	No changing attributes.
P4CWT	Industrial Process Cooling Towers	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Cooling Towers	FLOW MONITORING/TESTING METHOD = Choosing to use a continuous flow monitor on each inlet of each cooling tower in accordance with § 115.764(a)(1), (b)(1), or (h)(1).
P4CWT	Industrial Process Cooling Towers	N/A	R115-HR2	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).

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/ Inclusive Units	SOP Index No.	Regulation	Requirement Driver
P4DRYER1-2E	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
P4DRYER1-2E	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
P4DRYER1-2T	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
P4DRYER1-2T	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
P4EMGEN	SRIC Engines	N/A	R117-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
P4EMGEN	SRIC Engines	N/A	63ZZZZ-1	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
P4FLARE	Flares	N/A	R111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
P4FLARE	Flares	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
P4FLARE	Flares	N/A	60A-1	40 CFR Part 60, Subpart A	No changing attributes.
P4PELFLTR	Emission Points/ Stationary Vents/ Process Vents	N/A	R111-1	30 TAC Chapter 111, Nonagricultural Processes	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/ Inclusive Units	SOP Index No.	Regulation	Requirement Driver
P4PELFLTR	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
P4VALVEFUG	Fugitive Emission Units	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Fugitive Emissions	No changing attributes.
P4VALVEFUG	Fugitive Emission Units	N/A	R115-1	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	No changing attributes.
P4VALVEFUG	Fugitive Emission Units	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
P4VALVEFUG	Fugitive Emission Units	N/A	61J-1	40 CFR Part 61, Subpart J	No changing attributes.
PD-1401	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-HR1	30 TAC Chapter 115, HRVOC Vent Gas	No changing attributes.
PD-1401	Emission Points/ Stationary Vents/ Process Vents	N/A	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
PRO-3POLYP	Polymer Manufacturing Processes	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PRO-3POLYP	Polymer Manufacturing Processes	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	No changing attributes.
PRO-4POLYP	Polymer Manufacturing Processes	N/A	60DDD-1	40 CFR Part 60, Subpart DDD	No changing attributes.
PRO-4POLYP	Polymer Manufacturing Processes	N/A	60DDD-2	40 CFR Part 60, Subpart DDD	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
EMERGEN	EU	R117-1	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [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 stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up to 52 hours per year, based on a rolling 12-month average.	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
EMERGEN	EU	63ZZZZ-1	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table 2c.1 [G]§ 63.6640(f)(1) § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(b)	For each existing 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)-Table 6.9.a.i § 63.6640(a)-Table 6.9.a.ii § 63.6640(b)	§ 63.6625(i) § 63.6655(a) § 63.6655(a)(1) § 63.6655(a)(2) § 63.6655(a)(4) § 63.6655(a)(5) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(b) § 63.6640(e) § 63.6650(f)
GD-1401	EP	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(f) § 115.722(d) § 115.722(d)(1) § 115.722(d)(2)	All sites that are subject to this division and that are located in the Houston/Galveston/ Brazoria area as defined in §115.10 of this title (relating to Definitions),	§ 115.725(n) ** See CAM Summary	§ 115.726(d)(1) § 115.726(d)(2) § 115.726(d)(3) § 115.726(d)(4) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	§ 115.725(n)

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)
						excluding Harris County, are exempt from § 115.722(b) and (c)(2) of this title, except as provided in § 115.729(a)(3) of this title (relating to Counties and Compliance Schedules).			
GD-1401	EP	R115-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(a)(1) § 115.122(a)(1) § 115.122(a)(1)(B) § 60.18	No person may allow a vent gas stream containing VOC to be emitted from any process vent, unless the vent gas stream is burned properly in accordance with §115.122(a)(1) of this title.	[G]§ 115.125 § 115.126(1) § 115.126(1)(B) § 115.126(2) ** See CAM Summary	§ 115.126 § 115.126(1) § 115.126(1)(B) § 115.126(2)	None
MD-1401	EP	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(f) § 115.722(d) § 115.722(d)(1) § 115.722(d)(2)	All sites that are subject to this division and that are located in the Houston/Galveston/ Brazoria area as defined in §115.10 of this title (relating to Definitions), excluding Harris County, are exempt from § 115.722(b) and (c)(2) of this title, except as provided in § 115.729(a)(3) of this title (relating to Counties and Compliance Schedules).	§ 115.725(n) ** See CAM Summary	§ 115.726(d)(1) § 115.726(d)(2) § 115.726(d)(3) § 115.726(d)(4) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	§ 115.725(n)
MD-1401	EP	R115-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(a)(1) § 115.122(a)(1) § 115.122(a)(1)(B) § 60.18	No person may allow a vent gas stream containing VOC to be emitted from any	[G]§ 115.125 § 115.126(1) § 115.126(1)(B) § 115.126(2)	§ 115.126 § 115.126(1) § 115.126(1)(B) § 115.126(2)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						process vent, unless the vent gas stream is burned properly in accordance with §115.122(a)(1) of this title.	** See CAM Summary		
P2FLARE	EU	R111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
P2FLARE	EP	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(d) § 115.722(d)(1) § 115.722(d)(2) [G]§ 115.725(d)(1) § 115.725(d)(2) § 115.725(d)(2)(A)(i) [G]§ 115.725(d)(2)(A)(ii) § 115.725(d)(2)(A)(iii) § 115.725(d)(2)(A)(iv) § 115.725(d)(2)(B) § 115.725(d)(2)(B)(i) § 115.725(d)(2)(B)(ii) § 115.725(d)(2)(B)(iii) § 115.725(d)(2)(B)(iv) [G]§ 115.725(l) § 115.725(m)(2)(A) § 115.725(m)(2)(B) [G]§ 115.726(a)(2)	All flares must continuously meet the requirements of 40 CFR § 60.18(c)(2)-(6) and (d) as amended through October 17, 2000 (65 FR 61744) when vent gas containing HRVOC is being routed to the flare.	[G]§ 115.725(d)(1) § 115.725(d)(2) § 115.725(d)(2)(A)(i) [G]§ 115.725(d)(2)(A)(ii) § 115.725(d)(2)(A)(iii) § 115.725(d)(2)(A)(iv) § 115.725(d)(2)(B) § 115.725(d)(2)(B)(i) § 115.725(d)(2)(B)(ii) § 115.725(d)(2)(B)(iii) § 115.725(d)(2)(B)(iv) § 115.725(d)(3) § 115.725(d)(4) § 115.725(d)(5) § 115.725(d)(6) § 115.725(d)(7) § 115.725(k)(1) [G]§ 115.725(l) § 115.725(m)(1) § 115.725(m)(2)(A) § 115.725(m)(2)(B) § 115.725(n)	§ 115.726(a)(1) § 115.726(a)(1)(A) § 115.726(d)(1) § 115.726(d)(10) § 115.726(d)(2) § 115.726(d)(3) § 115.726(d)(4) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	§ 115.725(n) § 115.726(a)(1)(B) [G]§ 115.726(a)(2)
P2FLARE	CD	60A-1	OPACITY	40 CFR Part	§ 60.18(b)	Flares shall comply with	§ 60.18(d)	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, Subpart A	§ 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)	paragraphs (c)-(f) of § 60.18.	§ 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4)		
P3CONBF	EP	R111-1	PM	30 TAC Chapter 111, Nonagricultural Processes	§ 111.151(a) § 111.151(c)	No person may cause, suffer, allow, or permit emissions of particulate matter from any source to exceed the allowable rates specified in Table 1 as follows, except as provided by §111.153 of this title (relating to Emissions Limits for Steam Generators).	** See CAM Summary	None	None
P3CONBF	EP	R115-1	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) < 100 lbs (45.4 kg) in any continuous 24-hour period is exempt from the requirements of § 115.121(a)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2) § 115.126(4)	None
P3CWT	EU	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Cooling Towers	§ 115.767(6) § 115.764(a)(1) § 115.766(i)	All sites that are subject to this division and that are located in the Houston/ Galveston/Brazoria area as defined in § 115.10, excluding Harris County, are exempt from § 115.761(b) and (c)(2), except as provided in § 115.769(a)(3).	§ 115.764(a)(1) § 115.764(a)(3) [G]§ 115.764(a)(6) § 115.764(c)	§ 115.766(a)(1) § 115.766(a)(2) § 115.766(a)(3) § 115.766(a)(5) § 115.766(a)(6) § 115.766(c) [G]§ 115.766(g) § 115.766(i)(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)
P3CWT	EU	R115-HR2	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Cooling Towers	§ 115.767(6) § 115.766(i)	All sites that are subject to this division and that are located in the Houston/ Galveston/Brazoria area as defined in § 115.10, excluding Harris County, are exempt from § 115.761(b) and (c)(2), except as provided in § 115.769(a)(3).	§ 115.764(a)(3) [G]§ 115.764(a)(6) § 115.764(c)	§ 115.766(a)(1) § 115.766(a)(2) § 115.766(a)(3) § 115.766(a)(5) § 115.766(a)(6) § 115.766(c) [G]§ 115.766(e) [G]§ 115.766(g) § 115.766(i)(1)	§ 115.766(i)(2)
P3PELDRYER	EP	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(f) § 115.725(a)(1)(A) § 115.725(a)(1)(B) § 115.725(a)(1)(C) § 115.725(a)(3) [G]§ 115.725(a)(4) [G]§ 115.725(l) [G]§ 115.726(a)(2)	All sites that are subject to this division and that are located in the Houston/Galveston/ Brazoria area as defined in §115.10 of this title (relating to Definitions), excluding Harris County, are exempt from § 115.722(b) and (c)(2) of this title, except as provided in § 115.729(a)(3) of this title (relating to Counties and Compliance Schedules).	§ 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(l) § 115.725(n)	§ 115.726(b)(1) § 115.726(b)(2) § 115.726(b)(3) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	[G]§ 115.725(a)(4) § 115.725(a)(5) § 115.725(n) [G]§ 115.726(a)(2)
P3PELDRYER	EP	R115-1	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) < 100 lbs (45.4 kg) in any continuous 24-hour period is exempt from the requirements of § 115.121(a)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2) § 115.126(4)	None
P3PELDRYER	EP	R115-1	VOC	30 TAC Chapter 115, Vent Gas	§ 115.127(a)(2)(B) [G]§ 115.122(a)(4)	A vent gas stream specified in §	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				Controls	§ 115.127(a)(2)	115.121(a)(1) of this title with a concentration of VOC < 612 ppmv is exempt from § 115.121(a)(1).		§ 115.126(4)	
P3PELFLTR	EP	R111-1	PM	30 TAC Chapter 111, Nonagricultural Processes	§ 111.151(a) § 111.151(c)	No person may cause, suffer, allow, or permit emissions of particulate matter from any source to exceed the allowable rates specified in Table 1 as follows, except as provided by §111.153 of this title (relating to Emissions Limits for Steam Generators).	** See CAM Summary	None	None
P3PELFLTR	EP	R115-1	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) < 100 lbs (45.4 kg) in any continuous 24-hour period is exempt from the requirements of § 115.121(a)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2) § 115.126(4)	None
P-3POLY	EU	R111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
P-3POLY	EP	R115-HR1	HIGHLY REACTIVE	30 TAC Chapter 115, HRVOC	§ 115.722(d) § 115.722(d)(1)	All flares must continuously meet the	§ 115.725(g)(2)(E) § 115.725(i)	§ 115.726(d)(1) § 115.726(d)(2)	§ 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)
			VOC	Vent Gas	§ 115.722(d)(2) [G]§ 115.725(l)	requirements of 40 CFR § 60.18(c)(2)-(6) and (d) as amended through October 17, 2000 (65 FR 61744) when vent gas containing HRVOC is being routed to the flare.	[G]§ 115.725(l) § 115.725(n)	§ 115.726(d)(3) § 115.726(d)(4) [G]§ 115.726(d)(8) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	
P-3POLY	CD	60A-1	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
P3VALVEFUG	EU	R115-HR1	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) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1) § 115.787(g)	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)
P3VALVEFUG	EU	R115-HR1	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) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b) § 115.787(b)(1) § 115.787(g)	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)
P3VALVEFUG	EU	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.783(4)(A)(i)	Process drains within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(5) § 115.781(b)(6) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g)	§ 115.354(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) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i)	[G]§ 115.782(c)(1)(B)(i) [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)
					§ 115.783(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)	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(g)(1) § 115.781(g)(2) § 115.782(d)(2)	[G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	
P3VALVEFUG	EU	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.787(e) § 115.787(f) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(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 compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(b)(8) § 115.781(e) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 115.788(g)				
P3VALVEFUG	EU	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(5) § 115.787(f) § 115.787(f)(2) § 115.787(f)(3) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	Open-ended valves or lines within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 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) [G]§ 115.356(3)(C) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) § 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(2) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g) § 115.789(1)(B)
P3VALVEFUG	EU	R115-HR1	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)	Valves within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(5) § 115.787(f) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	butyl ether manufacturing process; or natural gas/gasoline processing operation which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	[G]§ 115.354(7) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 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)	[G]§ 115.788(g)
P3VALVEFUG	EU	R115-HR1	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,	§ 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)	§ 115.354(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) § 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) § 115.789(1)(B)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						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) § 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)	[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)	
P3VALVEFUG	EU	R115-HR1	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) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b)	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) [G]§ 115.356(3)(C) § 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)
P3VALVEFUG	EU	R115-HR1	HIGHLY REACTIVE	30 TAC Chapter 115, HRVOC	§ 115.781(b)(9) § 115.780(b)	Pump seals within a petroleum refinery;	§ 115.354(1) § 115.354(10)	§ 115.354(10) § 115.356	[G]§ 115.782(c)(1)(B)(i)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
			VOC	Fugitive Emissions	[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) § 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)	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(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)	[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) § 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)	§ 115.783(3)(C) [G]§ 115.786(c)
P3VALVEFUG	EU	R115-HR1	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)	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	§ 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)	§ 115.354(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) § 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)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(c)(1)(C)(i)(III) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b)	defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.782(d)(2)	§ 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)	
P3VALVEFUG	EU	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv)	Heat exchanger heads, sight glasses, meters, gauges, sampling connections, bolted manways, hatches, sump covers, junction box vents, and covers and seals on VOC water separators within the process unit or processes listed in §115.780(a) in which a HRVOC is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2) § 115.781(f)(3) § 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2) § 115.789(1)(B)	§ 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.789(1)(B)
P3VALVEFUG	EU	R115-1	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	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						division except §115.356(3)(C) of this title.			
P3VALVEFUG	EU	R115-1	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
P3VALVEFUG	EU	R115-1	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 dropping 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
P3VALVEFUG	EU	R115-1	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 dropping 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

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)
P3VALVEFUG	EU	R115-1	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) § 115.352(7) § 115.352(8) § 115.357(1) § 115.357(12) § 115.357(8)	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 million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
P3VALVEFUG	EU	R115-1	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) § 115.352(7) § 115.352(8) § 115.357(12) § 115.357(8)	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 million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(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
P3VALVEFUG	EU	R115-1	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)	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,	§ 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

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) § 115.357(12) § 115.357(8)	or the dropping or exuding of process fluid based on sight, smell, or sound.			
P3VALVEFUG	EU	R115-1	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 dropping 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
P3VALVEFUG	EU	R115-1	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 dropping 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
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-2 [G]§ 60.482-9	Comply with the requirements as stated in §60.482-2 for pumps in light-liquid service.	[G]§ 60.482-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.562-2(d) § 60.562-2(e)		[G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(e)(2) [G]§ 60.486(e)(4) [G]§ 60.486(h) § 60.486(j)	
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-10(e) [G]§ 60.482-10(g) § 60.482-10(h) § 60.482-10(m) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-10 for closed-vent systems.	[G]§ 60.482-10(f) § 60.482-10(i) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.482-10(j) [G]§ 60.482-10(k) [G]§ 60.482-10(l) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-3 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-3 for compressors.	[G]§ 60.482-3 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[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)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-4 [G]§ 60.482-9 § 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.	[G]§ 60.482-4 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-5 [G]§ 60.482-9 § 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)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(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)
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-6 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-6 for open-ended valves and lines.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-7 [G]§ 60.482-9 [G]§ 60.483-1 [G]§ 60.483-2 § 60.562-2(b) § 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.	[G]§ 60.482-7 [G]§ 60.483-1 [G]§ 60.483-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[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)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(d) § 60.487(e) § 60.565(l)
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for pumps in heavy-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 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.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9	Comply with the requirements in as stated in §60.482-8 for pressure relief devices in light-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 60.562-2(d) § 60.562-2(e)		§ 60.485(f)	§ 60.486(j)	
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for flanges or other connectors.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P3VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.18 § 60.482-1(a) § 60.482-1(b) § 60.482-10(d) § 60.482-10(e) § 60.482-10(m) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-10 for flares.	§ 60.485(a) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f) [G]§ 60.485(g)	[G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P3VALVEFUG	EU	61J-1	BENZENE	40 CFR Part 61, Subpart J	§ 61.110(c)(3)	Any process unit (defined in §61.241) that has no equipment in benzene service is exempt from §61.112.	None	§ 61.110(c)(1) § 61.246(i) § 61.246(i)(2)	None
P4CWT	EU	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Cooling Towers	§ 115.767(6) § 115.764(a)(1) § 115.766(i)	All sites that are subject to this division and that are located in the Houston/ Galveston/Brazoria area as defined in § 115.10, excluding Harris County, are exempt from § 115.761(b) and (c)(2), except as provided in § 115.769(a)(3).	§ 115.764(a)(1) § 115.764(a)(3) [G]§ 115.764(a)(6) § 115.764(c)	§ 115.766(a)(1) § 115.766(a)(2) § 115.766(a)(3) § 115.766(a)(5) § 115.766(a)(6) § 115.766(c) [G]§ 115.766(g) § 115.766(i)(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)
P4CWT	EU	R115-HR2	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Cooling Towers	§ 115.767(6) § 115.766(i)	All sites that are subject to this division and that are located in the Houston/ Galveston/Brazoria area as defined in § 115.10, excluding Harris County, are exempt from § 115.761(b) and (c)(2), except as provided in § 115.769(a)(3).	§ 115.764(a)(3) [G]§ 115.764(a)(6) § 115.764(c)	§ 115.766(a)(1) § 115.766(a)(2) § 115.766(a)(3) § 115.766(a)(5) § 115.766(a)(6) § 115.766(c) [G]§ 115.766(e) [G]§ 115.766(g) § 115.766(i)(1)	§ 115.766(i)(2)
P4DRYER1-2E	EP	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(c)(2)	A vent gas stream that has the potential to emit HRVOCs, but has a concentration less than 100 ppmv at all times or has a maximum potential flow rate equal to or less than 100 dry standard cubic feet per hour is exempt from this division with the exception of § 115.726(e)(3)(A) of this title. The maximum potential HRVOC emissions for the sum of all vent gas streams claimed under this exemption, must be less for the account specified in § 115.722(a) or (b) of this title than 0.5 tpy.	None	§ 115.726(e)(3)(A) § 115.726(j)(2)	None
P4DRYER1-2E	EP	R115-1	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) < 100 lbs (45.4 kg) in any	[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)
						continuous 24-hour period is exempt from the requirements of § 115.121(a)(1).			
P4DRYER1-2E	EP	R115-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(2)(B) [G]§ 115.122(a)(4) § 115.127(a)(2)	A vent gas stream specified in § 115.121(a)(1) of this title with a concentration of VOC < 612 ppmv is exempt from § 115.121(a)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2) § 115.126(4)	None
P4DRYER1-2T	EP	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(f) § 115.725(a)(1)(A) § 115.725(a)(1)(B) § 115.725(a)(1)(C) § 115.725(a)(3) [G]§ 115.725(a)(4) [G]§ 115.725(l) [G]§ 115.726(a)(2)	All sites that are subject to this division and that are located in the Houston/Galveston/ Brazoria area as defined in §115.10 of this title (relating to Definitions), excluding Harris County, are exempt from § 115.722(b) and (c)(2) of this title, except as provided in § 115.729(a)(3) of this title (relating to Counties and Compliance Schedules).	§ 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(l) § 115.725(n)	§ 115.726(b)(1) § 115.726(b)(2) § 115.726(b)(3) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	[G]§ 115.725(a)(4) § 115.725(a)(5) § 115.725(n) [G]§ 115.726(a)(2)
P4DRYER1-2T	EP	R115-1	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) < 100 lbs (45.4 kg) in any continuous 24-hour period is exempt from the requirements of § 115.121(a)(1).	[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)
P4DRYER1-2T	EP	R115-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(2)(B) [G]§ 115.122(a)(4) § 115.127(a)(2)	A vent gas stream specified in § 115.121(a)(1) of this title with a concentration of VOC < 612 ppmv is exempt from § 115.121(a)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2) § 115.126(4)	None
P4EMGEN	EU	R117-1	EXEMPT	30 TAC Chapter 117, Subchapter B	§ 117.303(a)(6)(D) [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 stationary gas turbines and stationary internal combustion engines that are used exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up to 52 hours per year, based on a rolling 12-month average.	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None
P4EMGEN	EU	63ZZZZ-1	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table 2c.1 [G]§ 63.6640(f)(1) § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(b)	For each existing 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)-Table 6.9.a.i § 63.6640(a)-Table 6.9.a.ii § 63.6640(b)	§ 63.6625(i) § 63.6655(a) § 63.6655(a)(1) § 63.6655(a)(2) § 63.6655(a)(4) § 63.6655(a)(5) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(b) § 63.6640(e) § 63.6650(f)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
P4FLARE	EU	R111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for emission event emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
P4FLARE	EP	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.722(d) § 115.722(d)(1) § 115.722(d)(2) [G]§ 115.725(l)	All flares must continuously meet the requirements of 40 CFR § 60.18(c)(2)-(6) and (d) as amended through October 17, 2000 (65 FR 61744) when vent gas containing HRVOC is being routed to the flare.	§ 115.725(g)(2)(E) § 115.725(i) [G]§ 115.725(l) § 115.725(n)	§ 115.726(d)(1) § 115.726(d)(2) § 115.726(d)(3) § 115.726(d)(4) [G]§ 115.726(d)(8) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	§ 115.725(n)
P4FLARE	CD	60A-1	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
P4PELFLTR	EP	R111-1	PM	30 TAC Chapter 111, Nonagricultural Processes	§ 111.151(a) § 111.151(c)	No person may cause, suffer, allow, or permit emissions of particulate matter from any source to exceed the allowable rates specified in Table 1 as follows, except as provided by §111.153 of this title (relating to Emissions Limits for Steam Generators).	** See CAM Summary	None	None

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)
P4PELFLTR	EP	R115-1	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) < 100 lbs (45.4 kg) in any continuous 24-hour period is exempt from the requirements of § 115.121(a)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2) § 115.126(4)	None
P4VALVEFUG	EU	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.783(4)(A)(i) § 115.783(4)(A)(ii) § 115.783(4)(A)(ii)(I) § 115.783(4)(A)(ii)(II) § 115.783(4)(B) § 115.783(4)(B)(i) § 115.783(4)(B)(ii)	Process drains within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation in which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(5) § 115.781(b)(6) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 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)
P4VALVEFUG	EU	R115-HR1	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)	Pressure relief valves (in gaseous service) within a petroleum refinery; synthetic organic chemical, polymer,	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(4) § 115.354(5)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3)	[G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(1) § 115.782(c)(1)(A) § 115.782(c)(1)(B) [G]§ 115.782(c)(1)(B)(i) § 115.782(c)(1)(B)(ii) [G]§ 115.782(c)(1)(B)(iii) § 115.782(c)(1)(B)(iv) § 115.787(e) § 115.787(f) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	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(6) [G]§ 115.354(7) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(b)(8) § 115.781(e) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i) [G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g) [G]§ 115.788(g)	§ 115.788(e) [G]§ 115.788(g)
P4VALVEFUG	EU	R115-HR1	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)	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,	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 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)	§ 115.354(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) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(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) § 115.787(f)(2) § 115.787(f)(3) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A) § 115.788(a)(2)(B) § 115.788(a)(2)(C) § 115.788(a)(2)(C)(i) § 115.788(a)(2)(C)(ii) § 115.788(a)(2)(C)(iii) § 115.788(a)(2)(D) § 115.788(a)(3) § 115.788(a)(3)(A) § 115.788(a)(3)(B) [G]§ 115.788(g)	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)(B) § 115.781(f) § 115.781(f)(1) § 115.781(f)(2) § 115.781(f)(3) § 115.781(f)(4) § 115.781(f)(5) § 115.781(f)(6) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2) § 115.789(1)(B)	§ 115.781(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)	
P4VALVEFUG	EU	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Fugitive Emissions	§ 115.781(b)(9) § 115.780(b) [G]§ 115.781(a) § 115.781(g)(3) § 115.782(a) § 115.782(b)(1) § 115.782(b)(2) § 115.782(c)(2) § 115.782(c)(2)(A) § 115.782(c)(2)(A)(i) § 115.782(c)(2)(A)(ii) § 115.782(c)(2)(B) § 115.783(5) § 115.787(f) § 115.787(f)(4) § 115.787(g) § 115.788(a) § 115.788(a)(1) § 115.788(a)(2) § 115.788(a)(2)(A)	Valves within a petroleum refinery; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process; or natural gas/gasoline processing operation which a highly-reactive volatile organic compound is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) § 115.781(b) § 115.781(b)(10) § 115.781(b)(4) § 115.781(b)(7) § 115.781(b)(7)(A) § 115.781(b)(7)(B) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.782(d)(2)	§ 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 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)	§ 115.782(c)(2)(A)(ii) [G]§ 115.786(c) § 115.788(c) [G]§ 115.788(d) § 115.788(e) [G]§ 115.788(g)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.788(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)	background as methane for all components.		§ 115.786(g) [G]§ 115.788(g)	
P4VALVEFUG	EU	R115-HR1	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) [G]§ 115.356(3)(C) § 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)

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)
P4VALVEFUG	EU	R115-HR1	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) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b)	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) [G]§ 115.356(3)(C) § 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)
P4VALVEFUG	EU	R115-HR1	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)	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	§ 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)	§ 115.354(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) § 115.781(b)(10) § 115.781(g) § 115.781(g)(1) § 115.781(g)(2) § 115.781(g)(3) [G]§ 115.782(c)(1)(B)(i)	[G]§ 115.782(c)(1)(B)(i) § 115.783(3)(C) [G]§ 115.786(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 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)	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(g)(1) § 115.781(g)(2) § 115.782(d)(2)	[G]§ 115.786(c) § 115.786(d) § 115.786(d)(1) § 115.786(d)(2) § 115.786(d)(2)(A) § 115.786(d)(2)(B) § 115.786(d)(2)(C) § 115.786(e) § 115.786(g)	
P4VALVEFUG	EU	R115-HR1	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) § 115.782(c)(1)(C)(ii) § 115.783(3) [G]§ 115.783(3)(A) [G]§ 115.783(3)(B) § 115.787(b)	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) [G]§ 115.356(3)(C) § 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)
P4VALVEFUG	EU	R115-HR1	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)	Heat exchanger heads, sight glasses, meters, gauges, sampling connections, bolted manways, hatches, sump	§ 115.781(b) § 115.781(b)(10) § 115.781(b)(3) § 115.781(b)(4) § 115.781(b)(7)	§ 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) § 115.789(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)
					§ 115.782(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)	covers, junction box vents, and covers and seals on VOC water separators within the process unit or processes listed in §115.780(a) in which a HRVOC is a raw material, intermediate, final product, or in a waste stream is subject to the requirements of this division. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.	§ 115.781(b)(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)	[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)	
P4VALVEFUG	EU	R115-1	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
P4VALVEFUG	EU	R115-1	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
P4VALVEFUG	EU	R115-1	VOC	30 TAC Chapter 115, Pet. Refinery &	§ 115.352(1)(A) § 115.352(1) § 115.352(10)	No process drains shall be allowed to have a VOC leak, for more than	§ 115.354(1) § 115.354(5) § 115.354(6)	§ 115.352(7) § 115.356 [G]§ 115.356(1)	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)
				Petrochemicals	§ 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(7) § 115.357(1)	15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(9) [G]§ 115.355 § 115.357(1)	[G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
P4VALVEFUG	EU	R115-1	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 dropping 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
P4VALVEFUG	EU	R115-1	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) § 115.352(7) § 115.352(8) § 115.357(1) § 115.357(12) § 115.357(8)	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 million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
P4VALVEFUG	EU	R115-1	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) § 115.352(7) § 115.352(8) § 115.357(12) § 115.357(8)	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 million by volume above background as methane, or the dropping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(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
P4VALVEFUG	EU	R115-1	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 dropping 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
P4VALVEFUG	EU	R115-1	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)	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,	§ 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)
					§ 115.352(5) § 115.352(7) § 115.357(1) § 115.357(8)	or the dropping or exuding of process fluid based on sight, smell, or sound.			
P4VALVEFUG	EU	R115-1	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 dropping 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
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-2 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-2 for pumps in light-liquid service.	[G]§ 60.482-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[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)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) § 60.482-10(e) [G]§ 60.482-10(g) § 60.482-10(h) § 60.482-10(m) § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-10 for closed-vent systems.	[G]§ 60.482-10(f) § 60.482-10(i) § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.482-10(j) [G]§ 60.482-10(k) [G]§ 60.482-10(l) [G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e) § 60.486(e)(1)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(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)
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-3 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements as stated in §60.482-3 for compressors.	[G]§ 60.482-3 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[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)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-4 [G]§ 60.482-9 § 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.	[G]§ 60.482-4 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(e)(3) [G]§ 60.486(e)(4) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-5 [G]§ 60.482-9 § 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)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-6 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-6 for open-ended valves and lines.	§ 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) § 60.485(f)	[G]§ 60.486(a) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-7 [G]§ 60.482-9 [G]§ 60.483-1	Comply with the requirements in as stated in §60.482-7 for valves in gas/vapor or light-liquid service.	[G]§ 60.482-7 [G]§ 60.483-1 [G]§ 60.483-2 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(c)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) [G]§ 60.486(e)(2)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(d) § 60.487(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)
					[G]§ 60.483-2 § 60.562-2(b) § 60.562-2(d) § 60.562-2(e)		[G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(e)(4) [G]§ 60.486(f) [G]§ 60.486(g) § 60.486(j)	
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for pumps in heavy-liquid service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 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.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 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 service.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.482-1(a) § 60.482-1(b) [G]§ 60.482-8 [G]§ 60.482-9 § 60.562-2(d) § 60.562-2(e)	Comply with the requirements in as stated in §60.482-8 for flanges or other connectors.	[G]§ 60.482-8 § 60.485(a) [G]§ 60.485(b) [G]§ 60.485(d) [G]§ 60.485(e) § 60.485(f)	[G]§ 60.486(a) [G]§ 60.486(b) [G]§ 60.486(c) § 60.486(e) § 60.486(e)(1) § 60.486(j)	§ 60.487(a) [G]§ 60.487(b) [G]§ 60.487(c) § 60.487(e) § 60.565(l)
P4VALVEFUG	EU	60DDD-1	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.562-2(a) § 60.18 § 60.482-1(a)	Comply with the requirements in as stated in §60.482-10 for	§ 60.485(a) [G]§ 60.485(c) [G]§ 60.485(d)	[G]§ 60.486(a) [G]§ 60.486(d) § 60.486(e)	§ 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(b) § 60.482-10(d) § 60.482-10(e) § 60.482-10(m) § 60.562-2(d) § 60.562-2(e)	flares.	§ 60.485(f) [G]§ 60.485(g)	§ 60.486(e)(1)	§ 60.487(e) § 60.565(l)
P4VALVEFUG	EU	61J-1	BENZENE	40 CFR Part 61, Subpart J	§ 61.110(c)(3)	Any process unit (defined in §61.241) that has no equipment in benzene service is exempt from §61.112.	None	§ 61.110(c)(1) § 61.246(i) § 61.246(i)(2)	None
PD-1401	EP	R115-HR1	HIGHLY REACTIVE VOC	30 TAC Chapter 115, HRVOC Vent Gas	§ 115.727(f) § 115.722(d) § 115.722(d)(1) § 115.722(d)(2)	All sites that are subject to this division and that are located in the Houston/Galveston/ Brazoria area as defined in §115.10 of this title (relating to Definitions), excluding Harris County, are exempt from § 115.722(b) and (c)(2) of this title, except as provided in § 115.729(a)(3) of this title (relating to Counties and Compliance Schedules).	§ 115.725(n) ** See CAM Summary	§ 115.726(d)(1) § 115.726(d)(2) § 115.726(d)(3) § 115.726(d)(4) § 115.726(i) § 115.726(j)(1) § 115.726(j)(2)	§ 115.725(n)
PD-1401	EP	R115-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.121(a)(1) § 115.122(a)(1) § 115.122(a)(1)(B) § 60.18	No person may allow a vent gas stream containing VOC to be emitted from any process vent, unless the vent gas stream is burned properly in accordance with §115.122(a)(1) of this title.	[G]§ 115.125 § 115.126(1) § 115.126(1)(B) § 115.126(2) ** See CAM Summary	§ 115.126 § 115.126(1) § 115.126(1)(B) § 115.126(2)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PRO-3POLYP	PRO	60DDD-1	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)
PRO-3POLYP	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(h)	Emergency vent streams, as defined in §60.561, from a new, modified, or reconstructed polypropylene or polyethylene affected facility are exempt from the requirements of §60.562-1(a)(2).	None	None	None
PRO-4POLYP	PRO	60DDD-1	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)
PRO-4POLYP	PRO	60DDD-2	VOC/TOC	40 CFR Part 60, Subpart DDD	§ 60.560(h)	Emergency vent streams, as defined in §60.561, from a new, modified, or reconstructed polypropylene or polyethylene affected facility are exempt from the requirements of	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)
						§60.562-1(a)(2).			

Additional Monitoring Requirements

CAM Summary

Unit/Group/Process Information	
ID Nos.: GD-1401, MD-1401, PD-1401	
Control Device ID Nos.: P2FLARE, P-3POLY, P4FLARE	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R115-1
Pollutant: VOC	Main Standard: § 115.121(a)(1)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Continuous	
Averaging Period: n/a	
Deviation Limit: No pilot flame.	
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 alarm events and duration of alarm 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.	

CAM Summary

Unit/Group/Process Information	
ID Nos.: GD-1401, MD-1401, PD-1401	
Control Device ID Nos.: P2FLARE, P-3FLARE, P4FLARE	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, HRVOC Vent Gas	SOP Index No.: R115-HR1
Pollutant: HIGHLY REACTIVE VOC	Main Standard: § 115.727(f)
Monitoring Information	
Indicator: Pilot Flame	
Minimum Frequency: Continuous	
Averaging Period: n/a	
Deviation Limit: No pilot flame.	
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 alarm events and duration of alarm 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.	

CAM Summary

Unit/Group/Process Information	
ID Nos.: P3CONBF, P3PELFLTR, P4PELFLTR	
Control Device ID Nos.: P3CONBF, P3PELFLTR, P4PELFLTR	Control Device Type: Fabric Filter
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Nonagricultural Processes	SOP Index No.: R111-1
Pollutant: PM	Main Standard: § 111.151(a)
Monitoring Information	
Indicator: Pressure Drop	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: When fabric filter is in operation the minimum pressure drop shall not be below 0.0 inches WC and the maximum pressure drop shall not exceed 5.0 inches WC.	
CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following: ± 0.5 inches water gauge pressure (± 125 pascals); or ± 0.5% of span.	

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		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
EMERGEN	N/A	40 CFR Part 60, Subpart IIII	CI ICE commenced construction prior to and not modified/reconstructed after 07/11/2005.
P2FLARE	N/A	40 CFR Part 63, Subpart A	Control device is not used to comply with an applicable subpart of 40 CFR Part 63.
P3CWT	N/A	40 CFR Part 63, Subpart Q	Cooling tower not operated with chromium-based water treatment chemicals after 09/08/1994.
P-3POLY	N/A	40 CFR Part 63, Subpart A	Control device is not used to comply with an applicable subpart of 40 CFR Part 63.
P3VALVEFUG	N/A	40 CFR Part 60, Subpart VV	Facility does not produce as an intermediate or final product, one or more of the chemicals listed in 40 CFR 60.489.
P4CWT	N/A	40 CFR Part 63, Subpart Q	Cooling tower not operated with chromium-based water treatment chemicals after 09/08/1994.
P4EMGEN	N/A	40 CFR Part 60, Subpart IIII	CI ICE commenced construction prior to and not modified/reconstructed after 07/11/2005.
P4FLARE	N/A	40 CFR Part 63, Subpart A	Control device is not used to comply with an applicable subpart of 40 CFR Part 63.
P4VALVEFUG	N/A	40 CFR Part 60, Subpart VV	Facility does not produce as an intermediate or final product, one or more of the chemicals listed in 40 CFR 60.489.

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.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX854M2	Issuance Date: 02/11/2013
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.: 19868	Issuance Date: 02/20/2015
Authorization No.: 35735	Issuance Date: 02/06/2008
Authorization No.: 95	Issuance Date: 02/11/2013
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.492	Version No./Date: 09/04/2000
Number: 80	Version No./Date: 01/08/1980

New Source Review Authorization References by Emissions Unit

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

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
EMERGEN	#3 POLYPROPYLENE EMERGENCY GENERATOR	19868
GD-1401	NO.2 POLYPROPYLENE KNOCKOUT POT	106.492/09/04/2000
MD-1401	NO. 3 POLYPROPYLENE KNOCKOUT POT	19868
MSS-PP	CAP FOR SITEWIDE MSS ACTIVITIES	95, PSDTX854M2
P2FLARE	NO. 2 POLYPROPYLENE FLARE	106.492/09/04/2000
P3CONBF	CONVEYING AIR BAG FILTER	19868
P3CWT	NO. 3 POLYP COOLING TOWER	19868
P3PELDRYER	NO. 3 POLYP PELLET DRYER	19868
P3PELFLTR	NO. 3 POLYP PELLET CLEANER	19868
P-3POLY	NO. 3 POLYPROPYLENE FLARE	19868, 95, PSDTX854M2
P3VALVEFUG	NO. 3 POLYP VALVE, FLANGE, PUMP FUGITIVE	19868
P4CWT	NO. 4 POLYP COOLING TOWER	35735
P4DRYER1-2E	NO.4 POLY PELLET DRYER EXH VENT 1-2	95, PSDTX854M2
P4DRYER1-2T	NO.4 POLY PELLET DRYER EXH VENT 1-2	95, PSDTX854M2
P4EMGEN	#4 POLYPROPYLENE EMERGENCY GENERATOR	35735
P4FLARE	NO. 4 POLYPROPYLENE FLARE	35735, 95, PSDTX854M2
P4PELFLTR	PELLET BAG FILTER	35735
P4VALVEFUG	NO. 4 POLYP VALVE, FLANGE, PUMP FUGITIVE	35735

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
PD-1401	NO. 4 POLYPROPYLENE KNOCKOUT POT	35735
PRO-3POLYP	NO. 3 POLYPROPYLENE UNIT	19868
PRO-4POLYP	NO. 4 POLYPROPYLENE UNIT	35735

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
COMS ..... continuous opacity monitoring system
CVS ..... closed-vent system
D/FW ..... Dallas/Fort Worth (nonattainment area)
DR ..... Designated Representative
ElP ..... El Paso (nonattainment area)
EP ..... emission point
EPA ..... U.S. Environmental Protection Agency
EU ..... emission unit
FCAA Amendments ..... Federal Clean Air Act Amendments
FOP ..... federal operating permit
GF ..... grandfathered
gr/100 scf ..... grains per 100 standard cubic feet
HAP ..... hazardous air pollutant
H/G/B ..... Houston/Galveston/Brazoria (nonattainment area)
H_2S ..... hydrogen sulfide
ID No. ..... identification number
lb/hr ..... pound(s) per hour
MMBtu/hr ..... Million British thermal units per hour
MRRT ..... monitoring, recordkeeping, reporting, and testing
NA ..... nonattainment
N/A ..... not applicable
NADB ..... National Allowance Data Base
NO_x ..... nitrogen oxides
NSPS ..... New Source Performance Standard (40 CFR Part 60)
NSR ..... New Source Review
ORIS ..... Office of Regulatory Information Systems
Pb ..... lead
PBR ..... Permit By Rule
PM ..... particulate matter
ppmv ..... parts per million by volume
PSD ..... prevention of significant deterioration
RO ..... Responsible Official
SO_2 ..... sulfur dioxide
TCEQ ..... Texas Commission on Environmental Quality
TSP ..... total suspended particulate
TVP ..... true vapor pressure
U.S.C. ..... United States Code
VOC ..... volatile organic compound

Appendix B

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 11, 2013

MS THERESA VITEK
MANAGER SAFETY HEALTH & ENVIRONMENTAL DEPARTMENT
INEOS USA LLC
PO BOX 1488
ALVIN TX 77512-1488

Re: Permit Amendment Application
Permit Number: 95 and PSDTX854M2
Chocolate Bayou Plant
Alvin, Brazoria County
Regulated Entity Number: RN100238708
Customer Reference Number: CN602817884
Account Number: BL-0002-S

Dear Ms. Vitek:

This is in response to your letter received March 15, 2011 and your Form PI-1 (General Application for Air Preconstruction Permits and Amendments) concerning the proposed amendment to Permit Number 95 and PSDTX854M2. We understand that you propose to convert your Subchapter G permit to a Subchapter B permit.

As indicated in Title 30 Texas Administrative Code § 116.116(b) and § 116.160 [30 TAC § 116.116(b) and § 116.160], and based on our review, Permit Number 95 and PSDTX854M2 is hereby amended. This information will be incorporated into the existing permit file. Enclosed are revised special conditions pages, a maximum allowable emission rates (MAERT) table, and a new permit face to replace those currently attached to your permit. We appreciate your careful review of the special conditions of the permit and assuring that all requirements are consistently met.

Planned maintenance, startup, and shutdown emissions have been previously reviewed, authorized, and included in the MAERT. Any other maintenance activities are not authorized by this permit and will need to obtain a separate authorization.

You may file a **motion to overturn** with the Chief Clerk. A motion to overturn is a request for the commission to review the executive director's decision. Any motion must explain why the commission should review the executive director's decision. According to 30 TAC § 50.139, an action by the executive director is not affected by a motion to overturn filed under this section unless expressly ordered by the commission.

A motion to overturn must be received by the Chief Clerk within 23 days after the date of this letter. An original and 11 copies of a motion must be filed with the Chief Clerk in person, or by mail to the Chief Clerk's address on the attached mailing list. On the same day the motion is transmitted to the Chief Clerk, please provide copies to the applicant, the executive director's

attorney, and the Public Interest Counsel at the addresses listed on the attached mailing list. If a motion to overturn is not acted on by the commission within 45 days after the date of this letter, then the motion shall be deemed overruled.

You may also request **judicial review** of the executive director's approval. According to Texas Health and Safety Code § 382.032, a person affected by the executive director's approval must file a petition appealing the executive director's approval in Travis County district court within 30 days after the **effective date of the approval**. Even if you request judicial review, you still must exhaust your administrative remedies, which includes filing a motion to overturn in accordance with the previous paragraphs.

Your cooperation in this matter is appreciated. If you need further information or have any questions, please contact Dr. Ozden Tamer, Ph.D., P.E. at (512) 239-4577 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,

Michael Wilson, P.E., Director
Air Permits Division
Office of Air
Texas Commission on Environmental Quality

MPW/mot

Enclosures

cc: Director, Environmental Health, Brazoria County Health Department, Angleton
Air Section Manager, Region 12 – Houston
Air Permits Section Chief, New Source Review Section (6PD-R), Environmental Protection Agency, Region 6, Dallas

Project Number: 164087

SPECIAL CONDITIONS

Permit Numbers 95 and PSDTX854M2

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources – Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in this permit.

   Planned startup and shutdown emissions due to the activities identified in Special Condition 2 are authorized from facilities and emission points identified in Attachment D in other construction permits at the site provided the facility and emissions are compliant with the respective maximum allowable emission rates table (MAERT) and special conditions, or Special Condition No. 58 of this permit.

Emission Standards and Operating Specifications

2. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources – Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this permit.

3. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions with the exception of those listed below:

   The relief valves on VOC Pressure Tanks AD-1901, AD-1902, AD-1903A, AD-1904, AD-1905, AD-1906, AD-3901, AD-3902, AD-3903A, AD-3903B, AD-3904, AD-3905, and AD-3906 are vented to the atmosphere under emergency conditions. These relief valves are also equipped with rupture discs.

   Except for those emissions authorized and listed on the MAERT, all direct atmospheric emissions from relief valves, safety valves, and rupture discs (including those listed above) are not authorized and must be documented and/or reported as required by Title 30 Texas Administrative Code (30 TAC) §§ 101.201 or 101.211.

Federal Applicability

4. This facility shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978; Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after July 23, 1984; Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI), VOC emissions from SOCMI Distillation Operations; and VOC emissions from SOCMI Reactor Processes in Title 40 Code of Federal Regulations (40 CFR) Part 60 Subparts A, K, Kb, VV, NNN, and RRR.

5. This facility shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants (NESHAPS) promulgated for Equipment Leaks (Fugitive Emission Sources) of Benzene; Equipment Leaks; and Benzene Waste Operations in 40 CFR Part 61, Subparts A, J, V, and FF.

6. This facility shall comply with all applicable requirements of the EPA regulations on NESHAPS for Source Categories promulgated for Control of Hazardous Air Pollutants (HAPs) from SOCMI, Control of HAPs from SOCMI for Process Vents, Storage Vessels, Transfer Operations, and Wastewater, and HAPS for Equipment Leaks in 40 CFR Part 63, Subparts A, F, G, and H.

7. This facility shall comply with all applicable requirements of the EPA regulations on NESHAPS for Source Categories promulgated for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations, and Generic Maximum Achievable Control Technology Standards in 40 CFR Part 63, Subparts A, XX, and YY.

8. This facility shall comply with all applicable requirements of the EPA regulations on NESHAPS for Source Categories promulgated for Organic Liquids Distribution (non-gasoline) in 40 CFR Part 63, Subparts A and EEEE.

9. This facility shall comply with all applicable requirements of the EPA regulations on NESHAPS for Source Categories promulgated for Miscellaneous Organic Chemical Manufacturing in 40 CFR Part 63, Subparts A and FFFF.

10. This facility shall comply with all applicable requirements of the EPA regulations on NESHAPS for Source Categories promulgated for Reciprocating Internal Combustion Engines in 40 CFR Part 63, Subparts A and ZZZZ.

11. This facility shall comply with all applicable requirements of the EPA regulations on NESHAPS for Source Categories promulgated for Industrial, Commercial, and Institutional Boilers and Process Heaters in 40 CFR Part 63, Subparts A and DDDDD.

Flares

12. Flares shall be designed and operated in accordance with the following requirements:

    A. The following requirements apply at all times to the Olefins flares (EPNs DM-1101 and DDM-3101). The Dock Flare (EPN AM-1500) shall meet these requirements during loading and unloading operations. The flare systems shall be designed such that the combined assist natural gas and waste stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions.

    The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate TCEQ Regional Office to demonstrate compliance with these requirements.

    B. The flare shall be operated with a flame present at all times and have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.

    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.

13. Fuel gas combusted at this facility shall contain no more than 5 grains of total sulfur per 100 dry standard cubic feet.

Furnaces

14. NOx emission rates from furnaces shall be limited to the following:

EPN	Source Name	Emission Limit (lb NOx/MMBtu)	Averaging period
DB-104	Steam Cracking Furnace	0.11	30-day rolling*
DB-105 DB-106 DB-107 DB-108 DB-109	Steam Cracking Furnaces	0.05	1-hr, excluding startup, shutdown, steam/air decoke, steam-water decoke & steam standby, shutdown
DB-201 DB-601 DDB-201 DDB-601 J-1	Regeneration Furnaces	0.15	1-hr
DDB-101A DDB-101B DDB-101C DDB-101D	Steam Cracking Furnaces	0.14	30-day rolling*
DDB-102A DDB-102B DDB-102C DDB-102D	Steam Cracking Furnaces	0.14	30-day rolling*
DDB-104A DDB-104B	Steam Cracking Furnaces	0.11	30-day rolling*

* Per 30 TAC 117.10 (49), 30 day rolling average is defined as the average calculated for each day that fuel is combusted in a unit, of all the hourly emissions data for the preceding 30 days that fuel was combusted in the unit.

Records of emissions shall be kept to demonstrate compliance on a rolling 12-month average basis.

The holder of this permit shall install, calibrate, maintain, and operate fuel flow meters in accordance with 30 TAC 117.340(a)(1)(B)(ii) and (a)(1)(B)(iii) on the fuel to each of

the furnaces listed above. Compliance with the MAERT limits shall be determined using the fuel flow and the emissions factors as described in the following table.

Sources	NOx	CO	PM	VOC	SO_2
DB-105 – 109 DB-102A – D	CEMS (4)	CEMS	0.0057 lb/MMBtu (1)	0.0041 lb/MMBtu (1)	Based on sulfur content of fuel
DB-104 DDB-101A - D DDB-104A – B	PEMS (4)	0.037 lb/MMBtu (2)	0.0057 lb/MMBtu (1)	0.0041 lb/MMBtu (1)	Based on sulfur content of fuel
DB-201 DB-601 DDB-201 DDB-601 J-1	Stack testing conducted per 30 TAC 117.335(a)(1)	0.124 lb/MMBtu (3)	0.0112 lb/MMBtu (3)	0.0081 lb/MMBtu (3)	Based on sulfur content of fuel

Notes:
(1) To be used in the absence of source-specific Reference Method testing data. Source: AP-42 value, adjusted for hydrogen content of fuel (12/10/2008 permit application)
(2) To be used in the absence of source-specific Reference Method testing data. Source: AP-42 value (12/10/2008 permit application)
(3) To be used in the absence of source-specific Reference Method testing data. Source: AP-42 value (7/28/2004 permit application)
(4) The data substitution procedures of 30 TAC 117.340(c)(3) shall be used for hours when the monitoring system does not provide valid hourly data.

15. Fuel gas fired in all the furnaces listed in the MAERT, if supplemental fuel is required, is limited to plant gas or pipeline-quality natural gas containing no more than 0.25 grain hydrogen sulfide and 5 grains total sulfur per 100 dry standard cubic feet on an hourly average. Use of any other fuel will require modification to this permit.

16. The holder of this permit shall record the number of decokes associated with each decoke stack (EPNs DF-104, DF-105, DDF-101, and DDF-104). Emissions shall be calculated by multiplying the number of decokes by 259.44 lb CO/decoke and 4.23 lb PM10/decoke, as described in the permit application.

Catalyst Regeneration

17. The holder of this permit shall record all instances of venting from the catalyst regeneration systems (EPNs J-2, DD-606, and DDD-606).

Olefins No. 1 and No. 2 Wastewater Treatment Plants

18. Benzene and caustic stripper non-condensables shall be routed to the Olefins Complex Flares (EPNs DM-1101 or DDM-3101) for disposal.

    The holder of this permit shall monitor the inlet of the Olefins Unit API Separators (EPNs FAM1704 and FAM3706) for benzene daily. Compliance with the MAERT shall be determined based on EPA WATER9 using the results of this monitoring.

Storage Tanks and Related Relief Valves

19. Storage tanks (EPNs DF-502, DF-916, DDF-202, DDF-1301, DF-1301, AF-3905, DF-1001, DDF-1001, AF-1101 through AF-1106, AF-1901 through AF-1905, AF-3101 through AF-3103, AF-3701, AF-3901, AF-4601A and AF-4601B) are subject to the following requirements. The control requirements specified in paragraphs A-E of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 pound per square inch, absolute (psia) at the maximum feed temperature or 95°F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons.

    A. An internal floating deck or "roof" or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof (IFR): (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.

    B. An open-top tank containing a floating roof (external floating roof (EFR) tank) which uses double seal or secondary seal technology shall be an approved control alternative to an IFR tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.

    C. For tanks with an IFR, the following requirements apply.

        (1) For vessels equipped with a liquid-mounted or mechanical shoe primary seal,

            a. Visually inspect the IFR and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed-roof at least once every 12 months. Verify the IFR is resting on the surface of the VOC inside the storage vessel and no liquid has accumulated on

the roof, the seal is not detached, and there are no holes or tears in the seal fabric.

b. Visually inspect the IFR, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the IFR has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items before refilling the storage vessel with VOC. Inspections required by this paragraph occur at intervals no greater than ten years.

(2) For vessels equipped with a vapor-mounted primary and rim-mounted secondary seal system, visually inspect the vessel as specified in paragraph C(1)b of this condition at least every five years; or visually inspect the vessel as specified in paragraph C(1)a of this condition.

(3) Keep a record of each inspection identifying the storage vessel on which the inspection was performed, the date the vessel was inspected, and the observed condition of each component of the control equipment (seals, IFR, and fittings).

D. For tanks with an EFR, the following requirements apply.

(1) Measurements to determine the seal gap areas and maximum gap widths.

a. Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed at least once every five years and measurements of gaps between the tank wall and the secondary seal shall be performed at least once a year.

b. Determine gap widths and areas in the primary and secondary seals individually when the roof is floating off the roof leg supports. Measure seal gaps around the entire circumference of the tank in each place where a 0.32 centimeter (cm) diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

The total surface area of each gap shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective

circumferential distance. Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter.

c. The accumulated area of gaps between the tank wall and the primary seal shall not exceed 212 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.

There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope. For mechanical shoe seals, one end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

d. The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall such that the accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm. There are to be no holes, tears, or other openings in the seal or seal fabric.

(2) Visually inspect the EFR, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed. If the EFR has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling the storage vessel with VOC.

(3) Keep a record of each gap measurement and visual inspection performed which includes the date of measurement or inspection, raw data obtained in the measurement, and any calculations performed to verify the seal gaps were acceptable.

E. The floating roof design shall incorporate sufficient flotation to conform to the requirements of American Petroleum Institute Code (API) 650 dated November 1, 1998, or an equivalent degree of flotation, except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.

F. Uninsulated tank exterior surfaces exposed to the sun shall be white or aluminum. Storage tanks must be equipped with permanent submerged fill pipes.

G. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous three-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 three-month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

Emissions for tanks shall be calculated using: the Texas Commission on Environmental Quality (TCEQ) publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."

H. The permit holder shall maintain a record of tank throughput for the previous three months and the past consecutive 12-month period for each tank.

20. Reserved.

21. The low-pressure relief valves on the OSBL pressure storage tanks shall be routed to the Nos. 1 and 2 Olefins unit flares.

22. Tanks AD-1901, AD-1902, AD-1903A, AD-1904, AD-1905, AD-1906, AD-3901, AD-3902, AD-3903A, AD-3903B, AD-3904, AD-3905, and AD-3906 shall be maintained at a pressure of at least 15 psia.

23. Manual relief valves and the lower-setting pressure relief valves for Tanks AD-1901, AD-1902, AD-1903A, AD-1904, AD-1905, AD-1906, AD-3901, AD-3902, AD-3903A, AD-3903B, AD-3904, AD-3905, and AD-3906 shall be routed to the closed header system connected to the Nos. 1 or 2 Olefins unit flare.

24. The seal on the pressure relief valves that vent to the atmosphere for Tanks AD-1901, AD-1902, AD-1903A, AD-1904, AD-1905, AD-1906, AD-3901, AD-3902, AD-3903A, AD-3903B, AD-3904, AD-3905, and AD-3906 shall be inspected quarterly. Records of the inspections shall be kept at the site for a period of two years and be made available upon request to representatives of the TCEQ.

Loading Operations

25. The venting of VOC vapors in concentrations greater than 1 percent directly to atmosphere during railcar (or barge) loading or degassing/depressuring is prohibited.

26. Railcar and barge loading vapors that remain in the loading arm shall be routed to a flare with no less than 98 percent removal efficiency.

27. All loading operations, other than vapor -tight loading operations, shall be submerged loading.

28. Except as provided for below, the use of compounds at the rail and dock loading facilities is limited to those identified in the permit amendment application dated February 28, 2005, and subsequent representations to that amendment. Modifications or construction of new facilities at the site that result in emission increases of the chemicals represented in the permit application or chemicals currently in use and previously authorized through the procedure below can only be approved through the use of the procedure below (if no physical modification/new construction) or through permit amendment. New compounds may be added through the use of the procedure below (30 TAC Chapters 106 or 116).

    A. Short-term (pounds per hour [lb/hr]) and annual (tons per year [TPY]) emissions and calculations shall be completed for each chemical at each affected source; emission rates shall be calculated in accordance with the methods documented in the permit amendment application dated February 28, 2005. The calculated emission rates shall not exceed the maximum allowable emission rate at any emission point.

    B. The Effect Screening Level (ESL) for the material shall be obtained from the current TCEQ ESL list or by written request to the TCEQ Toxicology Section.

    C. The total emissions of any compound from all emission points in this permit must satisfy one of the following conditions:

        (1) The total maximum emission rate from all sources is less than 0.04 lb/hr and the ESL greater than 2 $\mu g/m^3$; or

        (2) Case specific criteria based on modeling performed. In the simplest case, for only one emission point:

            $(ER/ESL)_N \leq (ER/ESL)_E$

            $(ER/ESL)_N$ = maximum hourly emission rate of new compound(s) divided by its ESL.

$(ER/ESL)_E$ = the highest ratio of any previously authorized compounds hourly emission rate divided by its ESL.

D. The permit holder shall maintain records of the information below and the demonstrations in steps A though C above. The following documentation is required for each compound:

(1) Chemical name(s), composition, and chemical abstract registry number if available.

(2) True vapor pressure at maximum hourly and annual average storage temperature.

(3) Molecular weight.

(4) Storage tanks, loading areas, and fugitive areas where the material is to be handled and the emission control device to be utilized.

(5) Date new compound handling commenced.

(6) Material Safety Data Sheet.

(7) Maximum concentration of the chemical in mole percent (or in weight percent for fugitive areas) in the affected facilities.

29. Records shall be maintained at the rail loading facility that identify the quantity and type of VOC loaded and unloaded. These records shall be maintained for a period of two years and made available to representatives of the TCEQ upon request.

Records shall be maintained for truck loading facilities (EPN FUELTRK1, FUELTRK2 and FUELTRK3) that identify the quantity and type of VOC loaded and unloaded. Compliance with the MAERT shall be determined based on the following equation from AP-42:

Loading Emissions (lbs) = 12.46 * S * VP * MW * (Q/1000) / (460+T)

Where
S = Saturation Factor (0.5)
VP = vapor pressure of VOC being loaded, psia
MW = molecular weight of VOC being loaded
Q = quantity of VOC loaded, gallons
T = loading temperature, ^oF

30. Operation without visible liquid leaks or spills shall be maintained at all loading and unloading facilities, regardless of vapor pressure. This does not apply to momentary dripping associated with the initial connection or disconnection of fittings. Sustained dripping from fittings during loading and unloading operations is not permitted. Any liquid spill that occurs during loading and unloading activities shall be reported or recorded, as applicable, pursuant to 30 TAC §§ 101.201 or 101.211 and shall be cleaned up immediately to minimize air emissions.

Cooling Towers

31. Cooling Tower and Heat Exchanger Systems in VOC Service

The holder of this permit shall perform sampling and make repairs as necessary to demonstrate ongoing compliance with the emission limits for the Cooling Towers (EPNs AT-1210 and DAT-3201). The results of all monitoring, maintenance, and repair efforts affecting the cooling tower and heat exchanger systems shall be recorded and such records shall be maintained for a period of five years. The records shall be made available to TCEQ personnel or other air pollution control agency upon request.

This permit does not authorize emissions from the cooling tower and heat exchanger systems other than those listed on the attached MAERT. Emissions that exceed a reportable quantity above the emissions listed in the MAERT must be documented and reported as required by 30 TAC §§ 101.201 or 101.211, as applicable. Emissions from repairs and delay of repair are not authorized for emission rates in excess of those listed on the attached MAERT.

The special conditions listed below (A through D of this special condition or alternatively Special Condition No. 33), shall apply to the cooling tower at Olefins No. 1. Upon start of operation of Phase II of the project, the cooling tower at No. 2 Olefins (DAT- 3201) shall meet A through D of this special condition or alternatively Special Condition No. 33. The results of the monitoring per A through D of this special condition or Condition No. 33 shall be used to determine the cooling tower emissions for demonstration of compliance with the MAERT limits.

Prior to start of operation of Phase II of the project, the holder of this permit shall comply with the following condition for Cooling Tower DAT-3201:

The VOC associated with the cooling tower water shall be monitored monthly with an approved air stripping system or equivalent. The appropriate equipment shall be maintained so as to minimize fugitive VOC emissions from the cooling tower. Faulty equipment shall be repaired at the earliest opportunity but no later than the next scheduled shutdown of the process unit in which the leak occurs. The results of the

monitoring and maintenance efforts shall be recorded, and such records shall be maintained for a period of two years. The records shall be made available to the TCEQ Executive Director upon request.

A. Monitoring and Detection Limits: The VOC emissions associated with cooling tower water shall be monitored monthly with an approved method. The sampling method may consist of the air stripping method known as the "El Paso" method, which is described in the TCEQ Publication: "Air Quality Permit Technical Guidance for Chemical Sources: Cooling Towers, TCEQ Publication No. RG-108, May 1997 (Revised)." The sample port for the water returning to the cooling tower shall be located on the top of the horizontal section of the water line returning to the cooling tower.

The minimum detection level of the overall testing system shall be 0.030 part per million by weight (ppmw) VOC (concentration VOC in water entering the cooling tower). The minimum detection limit for the air stripped VOC shall be 0.500 parts per million by volume (ppmv) (concentration VOC in the stripping air). Calibration standards shall include at least 0 ppmv and 10 ppmv VOC in air (as methane). The concentration of VOC in the stripped air may also be determined by the EPA Methods TO14 and TO15. The testing, analysis, and recordkeeping shall include the air contaminant speciation, physical characteristics, and instrumentation response factors used to convert from the air contaminant concentration in the stripping air (ppmv) to air contaminant concentration in the cooling water (ppmw).

If the El Paso method is used to determine the concentration of strippable VOC in the water returning to the cooling tower and the water returning to the process, the net concentration of strippable VOC in the water shall be used to determine emissions from the cooling tower (this concentration is the difference between the concentration of VOC in the water returning from the process and the water supplied to the process). If the El Paso method is used to determine the concentration of strippable VOC in the water returning to the cooling tower without sampling the water returning to the process, the concentration of VOC in the water supplied to the process shall be taken as zero.

Alternate methods may be approved by the TCEQ Houston Regional Office.

B. Action Level: The action level shall be a net concentration of strippable VOC in the water returning to the cooling tower of 0.050 ppmw. If the action level is exceeded, the permit holder shall comply with the repair requirements of paragraph C below, except as provided in paragraph D.

C. Repair: If the concentration of VOC in the water exceeds the action level as defined by paragraph B, then the cooling tower and heat exchanger system shall be repaired so that the concentration of VOC is reduced to below the action level. The repairs shall be made as soon as practical but not later than 45 calendar days after the permittee receives results of the monitoring tests indicating an exceedance of the action level.

D. Delay of Repair: For the purposes of this permit condition, delay of repair means not performing the repairs within 45 calendar days after the owner or operator receives results of monitoring tests indicating a concentration of VOC in the water exceeding the action level described in paragraph B. The permit holder may delay repair as provided for in paragraphs (i) through (v) below. Records of a decision to delay repair shall state the reasons repair was delayed and shall provide details to demonstrate compliance with paragraphs (i) through (v) below. Records shall be maintained on-site for at least five years and shall be provided to the TCEQ or other air pollution agencies upon request.

(1) Delay of repair of heat exchange systems for which leaks have been detected is allowed if the leaking equipment is isolated from the cooling tower system.

(2) Delay of repair of heat exchange systems for which leaks have been detected is allowed if the pressure of the cooling water throughout the leaking exchanger is increased to a pressure greater than the process side of the exchanger, thus reversing the direction of the leak.

(3) Delay of repair may be allowed if repair is technically infeasible without a total unit shutdown or a partial unit shutdown and a shutdown is expected within the next two months.

(4) Delay of repair may be allowed for up to 120 calendar days if necessary parts are not available.

(5) Delay of remissions from delaying repair. The permit holder may delay repair until the next shutdown of the process equipment associated with the leaking heat exchanger.

32. The cooling water shall be sampled once a day for total dissolved solids (TDS). Calculation of TDS from water conductivity sampling using a conversion factor shall be submitted to TCEQ Air Permits Division for approval within 90 days after issuance of the permit. Emissions of particulate matter shall be calculated consistent with the methodology of the permit application dated January 2007 and subsequent submittals.

33. In lieu of Special Conditions Nos. 31A through D, the holder of this permit may comply with applicable cooling tower heat exchange monitoring requirements in 40 CFR Part 63, Subpart XX (ethylene manufacturing facilities) and 30 TAC Chapter 115 Subchapter H. Division 2 (highly-reactive VOC sources).

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

The special conditions listed below shall correspond with the phased construction schedule of the project. Special Condition No. 34A through L shall immediately apply to Olefins No. 1 unit and Olefins No. 2 unit.

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

A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 psia at 68°F, or (2) operating pressure is at least 5 kilopascals (0.725 pound per square inch [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), 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 30 TAC Chapter 115, shall be identified in a list to be made available upon request.

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

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

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

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

Replaced components shall be re-monitored within 30 days of being placed back into VOC service.

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

H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired.

I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. At the discretion of the TCEQ Executive Director or his 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 his designated representative upon request. Records shall indicate appropriate dates, test methods, instrument readings, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of physical inspections are not required unless a leak is detected.

K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 through 115.359 or 40 CFR Part 63 Subpart H, National Emission Standards for Organic Hazardous Air Pollutants, 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 Standards (NSPS), or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.

35. Piping, Valves, Connectors, Pumps, and Compressors in VOC Service - 28RCT

The special conditions listed below (Nos. 35A through K) shall apply to the aromatic waste minimization facilities (including the benzene and caustic strippers) at both Olefin Nos. 1 and 2 units.

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

A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure equal to or less than 0.044 psia at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list to be made available upon request.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable ANSI, API, ASME, or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for

leak-checking during plant operation. Non-accessible valves, as defined by 30 TAC Chapter 115 shall be identified in a list to be made available upon request.

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

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

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

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

Replaced components shall be re-monitored within 30 days of being placed back into VOC service.

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

H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 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.

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

36. Reserved.

37. Quarterly Instrument Flanges/Connectors Monitoring - 28CNTQ

A. In addition to the weekly physical inspection required by Item E of Special Condition Nos. 34 or 35, all accessible connectors in gas/vapor and light liquid service as represented in the permit amendment application dated July 28, 2004 shall be monitored quarterly with an approved gas analyzer in accordance with Items F through J of Special Condition Nos. 34 or 35.

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

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

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

38. Piping, Valves, Pumps, and Compressors in Ammonia Service

A. Audio, olfactory, and visual checks for ammonia leaks within the operating area shall be made every shift.

B. Immediately, but not later than one hour upon detection of a leak, plant personnel shall take the following actions:

(1) Isolate the leak if possible.

(2) Commence repair or replacement of the leaking component.

(3) If isolation and repair within one hour is not possible, mitigation techniques shall be implemented (i.e., water misting) to control the leak until isolation or repair is accomplished.

Date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to leaks. These records shall be made available to representatives of the TCEQ upon request. The permit holder may use online ammonia leak detection, monitoring, and recordkeeping system after written approval from the TCEQ Air Permits Division in lieu of the physical inspection and recordkeeping of each physical inspection as specified in this special condition.

Initial Determination of Compliance

39. Sampling ports and platform(s) shall be incorporated into the design of the stacks of the Olefins Furnaces (EPNs DB-105, DB-106, DB-107, DB-108, DB-109, DDB-1, DDB-2, DDB-3, DDB-4, and DDB-5) according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director.

40. The holder of this permit shall perform stack sampling and other testing as required to initially establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the Olefins Furnaces (EPNs DB-105, DB-106, DB-107, DB-

108, DB-109); or in the case of retrofit at Olefins 2, sampling and testing is required to initially establish the actual pattern and quantities of air contaminants being emitted from the Olefins furnaces that have low-NO_x technology installed. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operation at his expense. Initial stack testing required by this condition was performed on October 12-27, 2005.

A. The appropriate TCEQ Regional Office in the region where the source is located shall be contacted as soon as testing is scheduled, but not less than 30 days prior to sampling to schedule a pretest meeting.

The notice shall include:

(1) 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.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.
A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in Paragraph B of this condition shall be submitted to the TCEQ Office of Permitting and Registration, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for NSPS testing which must have the EPA approval shall be submitted to the TCEQ Air Permits Division in Austin.

B. Air emissions emitted from the Olefins Furnaces to be tested for include (but are not limited to) NO_x, carbon monoxide (CO), and PM_{10}. The PM_{10} shall be sampled using the EPA Method 5 but including both the front-half and back-half of the sampling train and assuming that all PM is PM_{10}.

C. Sampling shall occur within 60 days of achieving stable operation of the furnace but not later than 180 days of initial start-up and at such other times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR

Part 61 requires the EPA approval, and requests shall be submitted to the TCEQ Air Permits Division in Austin.

D. Primary operating parameters that enable determination of the firing rate shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting.

E. Two copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the TCEQ Houston Regional Office
One copy to the Brazoria County Air Pollution Control Program, Angleton

Continuous Demonstration of Compliance

41. The holder of this permit shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) or a predictive emissions monitoring system (PEMS) to measure and/or predict and record the in-stack concentrations of NO_x, CO, and either oxygen (O_2) or carbon dioxide (CO_2) emissions from each of the Olefins Furnaces (EPNs DB-105, DB-106, DB-107, DB-108 and DB-109) and the Turbine A-100. Installation of the monitoring systems for these furnaces shall follow the construction schedule represented in this permit.

For Furnaces DDB-102A, DDB-102B, DDB-102C, and DDB-102D, the holder of this permit shall install a CEMS or PEMS in accordance with the schedule required by 30 TAC § 117.9020. Prior to installation and operation of the CEMS or PEMS, the holder of this permit may utilize its distributed control system and emission factors obtained from stack testing to demonstrate compliance.

42. Requirements for CEMS:

A. Each CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ in Austin for requirements to be met.

B. The system shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by

the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days, unless the monitor is required by a subpart of NSPS or NESHAPS, in which case zero and span shall be done daily without exception.

Each monitor shall be quality-assured at least quarterly using cylinder gas audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months. All CGA exceedances of ±15 percent accuracy and any CEMS downtime shall be reported to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

C. The monitoring data shall be reduced to hourly average concentrations at least once everyday, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of the permit allowable emission rates in pounds per hour and lb/MMBtu at least once every week.

D. All monitoring data and quality-assurance data shall be maintained by the source for a period of two years and shall be made available to the TCEQ Executive Director or his designated representative upon request. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.

43. Requirements for PEMS:

The holder of this permit may install, calibrate, and maintain a PEMS to demonstrate continuous compliance if it can be proven to have the same or better accuracy, precision, reliability, accessibility, and timeliness as that provided by a hardware CEMS.

A. The PEMS must be based on measured parameters such as (but not limited to) fuel flow and excess combustion air quantity.

B. The PEMS output as pounds of NO_x per hour will be averaged for each hour and for the operating day. These results shall be recorded and maintained at the plant site.

C. The PEMS must comply with the following:

(1) The PEMS must predict NO_x emissions in units of parts per million converted to pounds NO_x per MMBtu and pounds an hour.

(2) Monitor diluent, either O_2 or CO_2 using a PEMS.

(3) The PEMS shall meet the requirements of 40 CFR Part 75, Subpart E, except as provided in paragraphs (4) and (5) of this paragraph.

(4) The owner or operator may vary from 40 CFR Part 75, Subpart E if the owner or operator:

a. demonstrates to the satisfaction of the TCEQ Executive Director and the EPA that the alternative is substantially equivalent to the requirements of 40 CFR Part 75, Subpart E; or

b. demonstrates to the satisfaction of the TCEQ Executive Director that the requirement is not applicable.

(5) The owner or operator may substitute the following as an alternative to the test procedure of 40 CFR Part 75, Subpart E for any unit:

a. Perform the following alternative initial certification tests:

(i) conduct initial relative accuracy test audit (RATA) at low, medium, and high levels of the key operating parameter affecting NO_x using 40 CFR Part 60, Appendix B:

(I) Performance Specification 2, subsection 4.3 (pertaining to NO_x);

(II) Performance Specification 3, subsection 2.3 (pertaining to O_2 or CO_2); and

(ii) conduct an F-test, a t-test, and a correlation analysis using 40 CFR Part 75, Subpart E at low, medium, and high levels of the key operating parameter affecting NO_x.

(I) Calculations shall be based on a minimum of 30 successive emission data points at each tested level which are either 15-minute, 20-minute, or hourly averages.

(II) The F-test shall be performed separately at each tested level.

(III) The t-test and the correlation analysis shall be performed using all data collected at the three tested levels;

(iii) further demonstrate PEMS accuracy and precision for at least one unit of a category of equipment by performing RATA and statistical testing for each of three successive quarters, beginning:

(I) no sooner than the quarter immediately following initial certification; and
(II) no later than the first quarter following the final compliance date.

b. after the final compliance date, perform RATA for each unit:

(i) at normal load operations;

(ii) using the Performance Specification 2, subsection 4.3 (pertaining to NO_x);

(iii) at the following frequency:

(I) semiannually; or

(II) annually, if following the first semiannual RATA, the relative accuracy during the previous audit for each compound monitored by PEMS is less than or equal to 7.5 percent of the mean value of the reference method test data at normal load operation; or alternatively, for diluent, is no greater than 1.0 percent O_2 or CO_2, for diluent measured by reference method at less than 5 percent by volume.

D. The PEMS downtime summaries shall be submitted to the appropriate TCEQ Regional Director semiannually. If no downtime periods occur, this shall be so stated in the semiannual summary. Necessary corrective action shall be taken for each PEMS downtime occurrence.

E. Within 60 days after the PEMS is installed, a RATA shall be performed. Results of testing shall be submitted to the appropriate TCEQ Regional Office within 60 days after completion of the RATA. A result summary of all criteria testing performed pursuant to 30 TAC Chapter 117 shall be submitted within 60 days after completion of such tests

F. The appropriate TCEQ Regional Office shall be notified at least 15 days prior to each RATA for the PEMS to provide them the opportunity to observe testing.

G. The holder of this permit shall perform automatic sensor validation at least daily on any PEMS installed under authority of this permit. The permittee shall develop and implement plans that will ensure proper functioning of the monitoring systems, ensure proper accuracy and calibration of all operational parameters that affect emissions and serve as input to the PEMS and ensure continuous operation within the certified operating range.

H. The PEMS must provide valid emission predictions at least 95 percent of the time.

I. The PEMS reporting requirements of 30 TAC § 117.345 may be substituted for the reporting requirements if the PEMS is not subject to the requirements of 40 CFR Part 60.

44. Polypropylene Unit No. 4 (PP4) VOC emissions (EPNs P4PEDRYER1 and P4PEDRYER2; cap PP4DRV) from the pellet handling systems between the extruder and hopper car loading shall be determined by calculation using monthly production rates and monthly sampling and testing of the polypropylene product for residual VOC. Testing shall be done at the following locations: (A) immediately before the pellet extruder and (B) immediately before final product loading. The VOC head space test or equivalent approved by the TCEQ Regional Director will be used to determine the residual VOC.

The PP4 polymer production rates and monitoring records will be maintained at the plant site for at least the last two years and made available upon request to TCEQ personnel. The compliance records shall include (but are not limited to):

A. Date and time of sample.

B. Actual plant production rate at the time of sampling and monthly average production rates.

C. Product grade (at a minimum, by major grade category).

D. Measured total VOC concentration of polymer at the extruder (A) and before the final product is shipped (B).

E. Polymer handling emissions will be calculated by (A-B) multiplied by (monthly production rate). Calculations will take into account changes in product type.

Recordkeeping Requirements

45. Unless otherwise noted, continuous compliance with the emission standards and operating specifications of this permit will be demonstrated by maintaining the records required in the special conditions of this permit. The owner or operator of this facility shall record and maintain data as required by the special conditions of this permit. All records and inspection logs shall be maintained at the plant site for a period of two years and be made available to the Executive Director of the TCEQ or his designated representative upon request.

46. For the purposes of assuring compliance with VOC emission limitations, the holder of this permit shall maintain a quarterly emissions record which describes calculated emissions of VOC from storage in, and loading of, fixed-roof and IFR tanks covered under this permit. The record shall include name of the material stored or loaded, a list of all constants used for calculations, and calculated annual emissions in TPY.

47. A record of the semiannual verification of the floating roof seal's integrity and maintenance records shall also be kept.

48. The following information shall be maintained by the source for a period of two years and shall be made available upon request to the TCEQ Executive Director, his designated representative, or any local air pollution control agency having jurisdiction.

    A. The holder of this permit shall keep records of the fuel usage rate for the pyrolysis furnaces identified in the special conditions. The format and content of these records shall be accessible to the TCEQ Houston Regional Office to demonstrate compliance with the emission limitations appearing in the MAERT.

    B. Date, time, process equipment involved, and the cause of an emissions event, as defined in 30 TAC § 101.1(28). The duration of the emissions event, compound-specific types, and quantities of emissions released during the emissions event and the corrective action taken, if any, shall also be maintained.

    C. Records of the results for the required fugitive monitoring and maintenance program shall be readily available for inspectors. These records shall indicate appropriate dates, test methods, instrument readings, repair results, and corrective actions taken. Records of flange inspections are not required unless a leak is detected.

49. The holder of this permit shall install, calibrate, maintain, and operate a continuous flow monitoring system in accordance with 30 TAC 115.725(d)(1) to measure and record daily the vent stream flow to the Olefin Nos. 1 and 2 flares (EPNs DM-1101 and DDM-3101). The holder of this permit shall install, calibrate, maintain, and operate an on-line analyzer system in accordance with 30 TAC 115.725(d)(2) to determine the

VOC composition and the net heating value routed to the Olefin Nos. 1 and 2 flares. The VOC emissions from the flare shall be determined daily using a destruction efficiency of 99 percent in the destruction of C3s and lighter hydrocarbons and 98 percent efficiency in the destruction of C4+ hydrocarbons and expressed in lb/hr. The monitoring systems shall meet the availability requirements of 30 TAC 115.725(d)(3). The on-line analyzer system shall meet the data substitution requirements of 30 TAC 115.725(d)(4). The cumulative VOC emission to date, expressed in TPY, shall be determined at least once per month.

The emissions from the Dock Flare (EPN AM-1500) shall be calculated based on the number and type of barges loaded. Records of the number and type of barges loaded shall be maintained for a period of five years.

50. The permit holder shall maintain records of polypropylene product handling emissions at PP4, based on monthly test and production data as required by Special Condition No. 44.

Emission Cap Recordkeeping

51. The holder of this permit shall provide a demonstration of compliance with the emission cap limits listed on the attached table entitled "Emission Sources, Emissions Caps, and Individual Emission Limits" by calculating and recording aggregate air contaminant emission rates. The permittee shall calculate air contaminant emission rates on a rolling 12-month average basis, in units of TPY, for comparison to the air contaminants emission caps. The monthly emissions will be recorded on a quarterly basis.

Actual Hourly Emission Rates Upon Request - The holder of this permit shall calculate emissions to demonstrate compliance with the pounds-per-hour emission caps for specific individual operating hours and days upon request of personnel from the TCEQ or other air pollution control agencies.

Nonattainment New Source Review

52. This permit is conditioned upon the implementation of emission reductions as represented in Table 2N and Table PSD-2 dated August 10, 2001.

Gas Turbine A-100 Incorporated from Permit Number 9517

53. The concentration of NO_x in the stack gases from the A-100 turbine equipped with a dry low NOx burner system shall not exceed 95 parts per million by volume at 15

percent oxygen and on a dry basis, adjusted to ISO standard day conditions as specified in 40 CFR 60.335 (b)(1).

54. The holder of this permit shall install, calibrate, maintain, and operate fuel flow meters in accordance with 30 TAC 117.340(a)(1)(B)(iv) and (a)(1)(B)(vi) on the fuels to the cogen and HRSG. Compliance with the MAERT limits shall be determined using the methods described in the following table.

	NOx	CO	PM	VOC	SO2
Turbine	CEMS	CEMS	0.0066 lb/MMBtu	0.0021 lb/MMBtu	Based on sulfur content of fuel
HRSG	CEMS	CEMS	0.00745 lb/MMBtu	0.00539 lb/MMBtu	Based on sulfur content of fuel

Notes
(1) Factors for PM, VOC, and SO_2 are from AP-42, taken from the December 2006 permit application.
(2) The data substitution procedures of 30 TAC 117.340(c)(3) shall be used for hours when the NOx CEMS does not provide valid hourly data.

55. Fuels fired in the gas turbine and heat recovery steam generator (HRSG) are limited to sweet natural gas and plant produced fuel gases containing no more than 1.5 grains hydrogen sulfide and 20 grains total sulfur per 100 dry standard cubic feet.

56. The NO_x emissions generated from gas fuel which is fired in the HRSG shall not exceed 0.12 pound per million Btu heat input.

57. Hydrogen fuel gases in the turbine and in the HRSG shall not be fired at more than 110 percent of the rates maintained during sampling, unless prior approval by the Executive Director of the TCEQ is obtained.

Maintenance, Start-up, and Shutdown Activities

58. This permit authorizes the emissions from the facilities identified in Attachment D for the planned maintenance, startup, and shutdown (MSS) activities summarized in the MSS Activity Summary (Attachment C) attached to this permit. This permit authorizes maintenance, start-up, shutdown emissions from OLE1 and OLE2 Flares (EPNs DM-1101MSS, DDM-3101MSS, and FLAREMSSCAP) for the activities specified in the confidential document dated September 28, 2005. This permit also authorizes

maintenance emissions from the cleaning of process sewer hubs and water seal to prevent hydrocarbon excursions at the Olefins No. 1 and No. 2 API separators. Such cleaning activities are limited to 12 events per year. These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The performance of these activities and the emissions associated with each shall be recorded and the rolling 12-month emissions shall be updated on a monthly basis. Any maintenance, start-up, and shutdown activities not listed above are not authorized by this permit.

Flare emissions associated with normal operation (defined as continuous operation of the Olefins production facilities), including miscellaneous MSS activities that occur during normal operation, are authorized by the MAERT limits for EPNs DM-1101 and DDM-3101 for normal operation.

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

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

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

A. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;

B. the type of planned MSS activity and the reason for the planned activity;

C. the common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;

D. the date and time of the MSS activity and its duration;

E. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

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

60. Process units and facilities, with the exception of those identified in Special Conditions 63, 64, and 66, and Attachment A shall be depressurized, emptied, degassed, and placed in service in accordance with the following requirements.

A. The process equipment shall be depressurized to a control device or a controlled recovery system prior to venting to atmosphere, degassing, or draining liquid. Equipment that only contains material that is liquid with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to atmosphere and drained in accordance with paragraph C of this special condition. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded.

B. If mixed phase materials must be removed from process equipment, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. If the VOC partial pressure is greater than 0.50 psi at either the normal process temperature or 95°F, any vents in the system must be routed to a control device or a controlled recovery system. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. Control must remain in place until degassing has been completed or the system is no longer vented to atmosphere.

C. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment to commence degassing and/or maintenance. Liquids must be drained into a closed vessel or closed liquid recovery system unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.

D. If the VOC partial pressure is greater than 0.50 psi at the normal process temperature or 95°F, facilities shall be degassed using good engineering practice to ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. The facilities to be degassed shall not be vented directly to atmosphere, except as necessary to establish isolation of the work area or to monitor VOC concentration following controlled depressurization. The venting shall be minimized to the maximum extent practicable and actions taken recorded. The control device or recovery system utilized shall be recorded with the estimated emissions from controlled and uncontrolled degassing calculated using the methods that were used to determine allowable emissions for the permit application.

(1) For MSS activities identified in Attachment B, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.

(2) The locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the exhaust gases shall be recorded (process flow diagrams [PFDs] or piping and instrumentation diagrams [P&IDs] may be used to demonstrate compliance with the requirement). If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 61. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged. If there is not a connection (such as a sample, vent, or drain valve) available from which a representative sample may be obtained, a sample may be taken upon entry into the system after degassing has been completed. The sample shall be taken from inside the vessel so as to minimize any air or dilution from the entry point. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. Documented site procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.

E. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:

(1) It is not technically practicable to depressurize or degas, as applicable, into the process.

(2) There is not an available connection to a plant control system (flare).

(3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

All instances of venting directly to atmosphere per paragraph E of this special condition must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the work order or equivalent for those planned MSS activities identified in Attachment B.

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

A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:

(1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor (RF) of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate (RF) shall be recorded. If the RF of the VOC (or mixture of VOCs) to be monitored is greater than 2.0, the VOC concentration shall be determined as follows:

VOC Concentration = Concentration as read from the instrument*RF

In no case should a calibration gas be used such that the RF of the VOC (or mixture of VOCs) to be monitored is greater than 5.0.

(2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. As an alternative the VOC concentration may be monitored over a five-minute period with an instrument designed to continuously measure concentration and record the highest concentration read. The highest measured VOC concentration shall be recorded and shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

(1) The air contaminant concentration measured as defined in (3) is less than 80 percent of the range of the tube and is at least 20 percent of the maximum range of the tube.

(2) The tube is used in accordance with the manufacturer’s guidelines.

(3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) < release concentration.

Where the release concentration is:

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

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

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

C. Lower explosive limit measured with a lower explosive limit detector.

(1) The detector shall be calibrated within 30 days of use with a certified pentane gas standard at 25% of the lower explosive limit (LEL) for pentane. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.

(2) A functionality test shall be performed on each detector within 24 hours of use with a certified gas standard at 25% of the LEL for pentane. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.

(3) A certified methane or propane gas standard equivalent to 25% of the LEL for pentane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for pentane.

(4) The permit holder may request the use of a percentage of the LEL higher than ten percent. To do so, the permit holder may submit for consideration a site-specific empirical correlation of the VOC concentration in ppmv to percent LEL for the models of LEL meters in use at the site. The permit holder shall submit the following as a permit alteration request: 1) the make and model number of all LEL meters being used at the site; 2) a detailed calibration procedure for each meter in use, 3) data for each LEL meter make and model showing a correlation between the LEL meter reading and VOC concentration in ppmv, which shall consist of a minimum of ten LEL meter readings between 10 and 20 percent of the LEL from samples taken during planned MSS activities and the corresponding VOC concentration in ppmv measured by an instrument meeting the requirements of Special Condition 61A of this

permit; and 4) a letter requesting the alteration of the special conditions to reflect the higher LEL percentage. Only if the VOC-to-LEL correlation is approved by the Air Permits Division, the permit holder may demonstrate compliance with the 10,000 ppmv VOC limitation in Special Conditions 60D.(2) and 63B.(1). by using the higher LEL percentage established in lieu of the default 10 percent LEL.

D. Compound-specific PID analyzers may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

(1) The air contaminant concentration measured is within the calibration range of the analyzer.

(2) The analyzer is maintained and calibrated in accordance with the manufacturer's guidelines.

(3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

measured contaminant concentration (ppmv) < release concentration.

Where the release concentration is:

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

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

Records shall be maintained of the make and model of analyzer used, the calibration records, measured concentrations, and time the samples were taken.

62. This condition applies only to piping and components subject to leak detection and repair monitoring requirements identified in other NSR permits. 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;

A. a cap, blind flange, plug, or second valve must be installed on the line or valve; or

B. the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once by at the end of the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by 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.

63. This permit authorizes emissions from the storage tanks identified in the attached facility list during planned floating roof landings. Tank roofs may only be landed for changes of tank service or tank inspection/maintenance as identified in the permit application. Emissions from change of service tank landings, for which the tank is not cleaned and degassed, shall not exceed 10 tons of VOC in any rolling 12 month period. Tank roof landings include all operations when the tank floating roof is on its supporting legs. These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The following requirements apply to tank roof landings.

A. The tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank has been drained to the maximum extent practicable without entering the tank. Liquid level may be maintained steady for a period of up to two hours if necessary to allow for valve lineups and pump changes necessary to drain the tank. This requirement does not apply where the vapor under a floating roof is routed to control or a controlled recovery system during this process.

B. If the VOC partial pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, tank refilling or degassing of the vapor space under the landed floating roof must begin within 24 hours after the tank has been drained unless the vapor under the floating roof is routed to control or a controlled recovery system during this period. The tank shall not be opened except as necessary to set up for degassing and cleaning, Floating roof tanks with liquid capacities less than 100,000 gallons may be degassed without control if the VOC partial pressure of the standing liquid in the tank has been reduced to less than 0.02 psia prior to ventilating the tank. Controlled degassing of the vapor space under landed roofs shall be completed as follows:

(1) Any gas or vapor removed from the vapor space under the floating roof must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery

system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space under the floating roof when degassing to the control device or controlled recovery system.

(2) The vapor space under the floating roof shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.

(3) A volume of purge gas equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition 61.

(4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.

(5) Degassing must be performed every 24 hours unless there is no standing liquid in the tank or the VOC partial pressure of the remaining liquid in the tank is less than 0.15 psia.

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

Minimize air circulation in the tank vapor space.

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

b. Access points shall be closed when not in use

D. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.

(1) Low VOC partial pressure liquid that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. This liquid shall be added during tank degassing if practicable. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.

(2) If water is added or sprayed into the tank to remove standing VOC, one of the following must be demonstrated:

a. Take a representative sample of the liquid remaining in the tank and verify no visible sheen using the static sheen test from 40 CFR 435 Subpart A Appendix 1.

b. Take a representative sample of the liquid remaining in the tank and verify hexane soluble VOC concentration is less than 1000 ppmw using EPA method 1664 (may also use 8260B or 5030 with 8015 from SW-846).

c. Stop ventilation and close the tank for at least 24 hours. When the tank manway is opened after this period, verify VOC concentration is less than 1000 ppmv through the procedure in Special Condition 61.

(3) No standing liquid verified through visual inspection.

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

E. Tanks shall be refilled as rapidly as practicable until the roof is off its legs with the following exceptions:

(1) Only one tank with a landed floating roof can be filled at any time at a rate not to exceed 1,800 bbl/hr.

(2) The vapor space below the tank roof is directed to a control device when the tank is refilled until the roof is floating on the liquid. The control device used and the method and locations used to connect the control device shall be recorded. All vents from the tank being filled must exit through the control device.

F. The occurrence of each roof landing and the associated emissions shall be recorded and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information:

(1) the identification of the tank and emission point number, and any control devices or recovery systems used to reduce emissions;

(2) the reason for the tank roof landing;

(3) for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:

a. the roof was initially landed,
b. all liquid was pumped from the tank to the extent practical,
c. start and completion of controlled degassing, and total volumetric flow,
d. all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,
e. if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow,
f. refilling commenced, liquid filling the tank, and the volume necessary to float the roof; and
g. tank roof off supporting legs, floating on liquid;

(4) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events c and g with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids" dated November 2006 and the permit application.

64. Fixed roof storage tanks are subject to the requirements of Special Condition 63C. and 63D. If the ventilation of the vapor space is controlled, the emission control system shall meet the requirements of Special Condition 63B(1) through 63B(4). Records shall be maintained per Special Condition 63F(3)c through 63F(3)e, and 63F(4).

65. The following requirements apply to vacuum and air mover truck operations to support planned MSS at this site:

A. Prior to initial use, identify any liquid in the truck. Record the liquid level and document the VOC partial pressure. After each liquid transfer, identify the liquid, the volume transferred, and its VOC partial pressure.

B. If vacuum pumps or blowers are operated when liquid is in or being transferred to the truck, the following requirements apply:

(1) If the VOC partial pressure of the liquid in or being transferred to the truck is greater than 0.50 psi at 95°F, the vacuum/blower exhaust shall be routed to a control device or a controlled recovery system.

(2) Equip fill line intake with a "duckbill" or equivalent attachment if the hose end cannot be submerged in the liquid being collected.

(3) A daily record containing the information identified below is required for each vacuum truck in operation at the site each day.

a. For each liquid transfer made with the vacuum operating, record the duration of any periods when air may have been entrained with the liquid transfer. The reason for operating in this manner and whether a "duckbill" or equivalent was used shall be recorded. Short, incidental periods, such as those necessary to walk from the truck to the fill line intake, do not need to be documented.

b. If the vacuum truck exhaust is controlled with a control device other than an engine or oxidizer, VOC exhaust concentration upon commencing each transfer, at the end of each transfer, and at least every hour during each transfer shall be recorded, measured using an instrument meeting the requirements of Special Condition 61A or B.

C. Record the volume in the vacuum truck at the end of the day, or the volume unloaded, as applicable.

D. The permit holder shall determine the vacuum truck emissions each month using the daily vacuum truck records and the calculation methods utilized in the permit application. If records of the volume of liquid transferred for each pick-up are not maintained, the emissions shall be determined using the physical properties of the liquid vacuumed with the greatest potential emissions. Rolling 12 month vacuum truck emissions shall also be determined and recorded on a monthly basis.

E. If the VOC partial pressure of all the liquids vacuumed into the truck is less than 0.10 psi, this shall be recorded when the truck is unloaded or leaves the plant site and the emissions may be estimated as the maximum potential to emit for a truck in that service as documented in the permit application. The recordkeeping requirements in Special Condition 65A through 65D do not apply.

66. The following requirements apply to frac, or temporary, tanks and vessels used in support of MSS activities.

A. The exterior surfaces of these tanks/vessels that are exposed to the sun shall be white or aluminum effective May 1, 2013. This requirement does not apply to

tanks/vessels that only vent to atmosphere when being filled, sampled, gauged, or when removing material.

B. These tanks/vessels must be covered and equipped with fill pipes that discharge within 6 inches of the tank/vessel bottom.

C. These requirements do not apply to vessels storing less than 450 gallons of liquid that are closed such that the vessel does not vent to atmosphere except when filling, sampling, gauging, or when removing material.

D. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all frac tanks during the previous calendar month and the past consecutive 12 month period. This record must be updated by the last day of the month following. The record shall include tank identification number, dates put into and removed from service, control method used, tank capacity and volume of liquid stored in gallons, name of the material stored, VOC molecular weight, and VOC partial pressure at the estimated monthly average material temperature in psia. Filling emissions for tanks shall be calculated using the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Loading Operations" and standing emissions determined using: the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."

E. If the tank/vessel is used to store liquid with VOC partial pressure less than 0.10 psi at 95°F, records may be limited to the days the tank is in service and the liquid stored. Emissions may be estimated based upon the potential to emit as identified in the permit application.

67. Additional occurrences of MSS activities authorized by this permit may be authorized under permit by rule only if conducted in compliance with this permit's procedures, emission controls, monitoring, and recordkeeping requirements applicable to the activity.

68. All permanent facilities must comply with all operating requirements, limits, and representations in the permits identified in Attachment D during planned startup and shutdown unless alternate requirements and limits are identified in this permit. Alternate requirements for emissions from routine emission points are identified below.

A. Combustion units, with the exception of flares, at this site are exempt from NOx and CO operating requirements identified in special conditions in other NSR permits during planned startup and shutdown if the following criteria are satisfied.

(1) The maximum allowable emission rates in the permit authorizing the facility are not exceeded.

(2) The startup period does not exceed 8 hours in duration and the firing rate does not exceed 75 percent of the design firing rate. The time it takes to complete the shutdown does not exceed 4 hours.

(3) Control devices are started and operating properly when venting a waste gas stream.

B. A record shall be maintained indicating that the start and end times of each of the activities identified above occur and documentation that the requirements for each have been satisfied.

69. Control devices required by this permit for emissions from planned MSS activities are limited to those types identified in this condition. Control devices shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Each device used must meet all the requirements identified for that type of control device.

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

A. Carbon Adsorption System (CAS).

(1) The CAS shall consist of 2 carbon canisters in series with adequate carbon supply for the emission control operation.

(2) The CAS shall be sampled downstream of the first can and the concentration recorded at least once every hour of CAS run time to determine breakthrough of the VOC. The sampling frequency may be extended using either of the following methods:

a. It may be extended to up to 30 percent of the minimum potential saturation time for a new can of carbon. The permit holder shall maintain records including the calculations performed to determine the minimum saturation time.

b. The carbon sampling frequency may be extended to longer periods based on previous experience with carbon control of a MSS waste gas stream. The past experience must be with the same VOC, type of facility, and MSS activity. The basis for the sampling frequency shall be recorded. If the VOC concentration on the initial sample downstream of the first carbon canister following a new polishing canister being put in place is greater than 100 ppmv above background, it shall be assumed that

breakthrough occurred while that canister functioned as the final polishing canister and a permit deviation shall be recorded.

(3) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 61A or B.

(4) Breakthrough is defined as the highest measured VOC concentration at or exceeding 100 ppmv above background. When the condition of breakthrough of VOC from the initial saturation canister occurs, the waste gas flow shall be switched to the second canister and a fresh canister shall be placed as the new final polishing canister within four hours. Sufficient new activated carbon canisters shall be maintained at the site to replace spent carbon canisters such that replacements can be done in the above specified time frame.

(5) Records of CAS monitoring shall include the following:

a. Sample time and date.
b. Monitoring results (ppmv).
c. Canister replacement log.

(6) Single canister systems are allowed if the time the carbon canister is in service is limited to no more than 30 percent of the minimum potential saturation time. The permit holder shall maintain records for these systems, including the calculations performed to determine the saturation time. The time limit on carbon canister service shall be recorded and the expiration date attached to the carbon can.

B. Thermal Oxidizer.

(1) The thermal oxidizer firebox exit temperature shall be maintained at not less than 1400°F and waste gas flows shall be limited to assure at least a 0.5 second residence time in the fire box while waste gas is being fed into the oxidizer.

(2) The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurements shall be made at intervals of six minutes or less and recorded at that frequency.

The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5ºC.

C. Internal Combustion Engine.

(1) The internal combustion engine shall have a VOC destruction efficiency of at least 99 percent.

(2) The engine must have been stack tested with butane or propane to confirm the required destruction efficiency within the period specified in part iii below. VOC shall be measured in accordance with the applicable United States Environmental Protection Agency (EPA) Reference Method during the stack test and the exhaust flow rate may be determined from measured fuel flow rate and measured oxygen concentration. A copy of the stack test report shall be maintained with the engine. There shall also be documentation of acceptable VOC emissions following each occurrence of engine maintenance that may reasonably be expected to increase emissions including oxygen sensor replacement and catalyst cleaning or replacement. Stain tube indicators specifically designed to measure VOC concentration shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable VOC analyzers meeting the requirements of Special Condition 61A are also acceptable for this documentation.

(3) The engine shall be operated and monitored as specified below.

a. If the engine is operated with an oxygen sensor-based air-to-fuel ratio (AFR) controller, documentation for each AFR controller that the manufacturer's or supplier's recommended maintenance has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor-based controllers shall be maintained with the engine. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation. The engine must have been stack tested within the past 12 months in accordance with part 2 of this condition.

The test period may be extended to 24 months if the engine exhaust is sampled once an hour when waste gas is directed to the engine using a detector meeting the requirements of Special Condition 61A. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the engine. The concentrations shall be recorded and the MSS activity shall be stopped as soon as possible if the VOC concentration exceeds 100 ppmv above background.

b. If an oxygen sensor-based AFR controller is not used, the engine exhaust to atmosphere shall be monitored continuously and the VOC concentration

recorded at least once every 15 minutes when waste gas is directed to the engine. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the engine. The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 61A. An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible if the VOC concentration exceeds 100 ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded. The engine must have been stack tested within the past 24 months in accordance with part 2 of this condition.

D. The plant flare system

(1) The heating value and velocity requirements in 40 CFR 60.18 shall be satisfied during operations authorized by this permit.

(2) The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.

(3) The flare system shall meet the requirements as indicated in Permit Condition 49 of this permit, Permit Condition 8B of Permit 19868 and Permit Condition 3B of Permit 35735. The flare system emissions are listed in the MAERTs of permits 19868 and 35735, the two permits that authorize the flares.

E. A liquid scrubbing system may be used upstream of carbon adsorption. A single carbon can or a liquid scrubbing system may be used as the sole control device if the requirements below are satisfied.

(1) The exhaust to atmosphere shall be monitored continuously and the VOC concentration recorded at least once every 15 minutes when waste gas is directed to the scrubber.

(2) The method of VOC sampling and analysis shall be by detector meeting the requirements of Special Condition 61A.

(3) An alarm shall be installed such that an operator is alerted when outlet VOC concentration exceeds 100 ppmv above background. The MSS activity shall be stopped as soon as possible when the VOC concentration exceeds 100

ppmv above background for more than one minute. The date and time of all alarms and the actions taken shall be recorded.

F. A closed loop refrigerated vapor recovery system

(1) The vapor recovery system shall be installed on the facility to be degassed using good engineering practice to ensure air contaminants are flushed from the facility through the refrigerated vapor condensers and back to the facility being degassed. The vapor recovery system and facility being degassed shall be enclosed except as necessary to insure structural integrity (such as roof vents on a floating roof tank).

(2) VOC concentration in vapor being circulated by the system shall be sampled and recorded at least once every 4 hours at the inlet of the condenser unit with an instrument meeting the requirements of Special Condition 61.

(3) The quantity of liquid recovered from the tank vapors and the tank pressure shall be monitored and recorded each hour. The liquid recovered must increase with each reading and the tank pressure shall not exceed one inch water pressure while the system is operating.

G. Temporary Flares

(1) Temporary flares shall be used only to control emissions from the depressurizing and degassing of pipelines in the metering yard.

(2) The heating value and velocity requirements in 40 CFR § 60.18 shall be satisfied during operations authorized by this permit.

(3) Pipelines in the metering yard shall be depressurized to a temporary flare and then purged with natural gas.

(4) The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The flare shall be equipped and operated with a continuous pilot flame monitor, or in the alternative, a technician shall observe the flame for the entire duration of the activity. The time, date and duration of any loss of pilot flame shall be recorded.

(5) The permit holder shall demonstrate compliance with the velocity requirements of 40 CFR § 60.18 by 1) recording the maximum flow rate of the combined waste gas and assist gas going to the flare, 2) recording the cross section area of the flare tip, and 3) calculating the flow rate of the combined gas stream going to the flare.

70. The following requirements apply to capture systems for the plant flare system.

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

B. The control device shall not have a bypass.

or

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

(1) Install a flow indicator that records and verifies zero flow at least once every fifteen minutes immediately downstream of each valve that if opened would allow a vent stream to bypass the control device and be emitted, either directly or indirectly, to the atmosphere; or

(2) Once a month, inspect the valves, verifying that the position of the valves and the condition of the car seals 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 per this permit.

C. The date and results of each inspection performed shall be recorded. If the results of any inspection are not satisfactory, the deficiencies shall be recorded and the permit holder shall promptly take necessary corrective action, recording each action with the date completed.

71. With the exception of the MAERT emission limits, Special Conditions No. 58-70 become effective 180 days after this permit has been issued. During this period, monitoring and recordkeeping shall satisfy the requirements of Special Condition 59A through 59D. Emissions shall be estimated using good engineering practice and methods to provide reasonably accurate representations for emissions. The basis used for determining the quantity of air contaminants to be emitted shall be recorded. The permit holder may maintain abbreviated records of emissions from Attachment A and B activities as allowed in Special Condition 59 rather than documenting all the information required by Special Condition 59 parts A through D.

72. Planned maintenance activities must be conducted in a manner consistent with good practice for minimizing emissions, including the use of air pollution control equipment, practices and processes. All reasonable and practical efforts to comply with these Special Conditions must be used when conducting the planned maintenance activity, until the commission determines that the efforts are unreasonable or impractical, or that the activity is an unplanned maintenance activity.

Additional Requirement

73. Permit holder shall not increase the routine or MSS emission rates or caps during a future permitting action as a result of incorporation of any Permit by Rule(s) or standard permits that were authorized when this permit was a flexible permit.

Dated _February 11, 2013_

Permit Numbers 95 and PSDTX854M2
Attachment A
Inherently Low Emitting Activities

Activity	Emissions				
	VOC	NOx	CO	PM	H_2S/SO_2
Management of sludge from pits, ponds, sumps, and water conveyances	x				
Aerosol Cans	x				
Calibration and maintenance of analytical equipment	x	x	x		x
Carbon can replacement	x				
Catalyst charging/handling				x	
Instrumentation/ maintenance	x				
Meter proving	x				
Maintenance on water treatment systems (cooling, boiler, potable)	x				
Soap and other aqueous based cleaners	x				
Cleaning sight glasses	x				

Dated __February 11, 2013

Permit Numbers 95 and PSDTX854M2
Attachment B
Routine Maintenance Activities

Pump repair/replacement
Fugitive component (valve, pipe, flange) repair/replacement
Compressor repair/replacement
Heat exchanger repair/replacement
Vessel repair/replacement

Dated __February 11, 2013__

Permit Numbers 95 and PSDTX854M2
Attachment C
MSS Activity Summary

Facilities	Description	Emissions Activity	EPN
all process units	process unit shutdown/depressurize/drain	vent to flare	MSSCAP2/MSSFUG1
all process units	process unit purge/degas/drain	vent to atmosphere	MSSCAP2/MSSFUG1
all process units	process unit startup	vent to flare	MSSCAP2/MSSFUG1
all process units and tanks	preparation for facility/component repair/replacement	vent to flare	MSSCAP2/MSSFUG1
all process units and tanks	preparation for facility/component repair/replacement	vent to atmosphere	MSSCAP2/MSSFUG1
all process units and tanks	recovery from facility/component repair/replacement	vent to flare	MSSCAP2/MSSFUG1
all process units and tanks	recovery from facility/component repair/replacement	vent to atmosphere	MSSCAP2/MSSFUG1
all process units and tanks	preparation for unit turnaround or facility/component repair/replacement	remove liquid	MSSCAP2/MSSFUG1
all floating roof tanks	tank roof landing	operation with landed roof	MSSCAP2/MSSFUG1
all floating roof tanks	degas of tank with landed roof	controlled degassing	MSSCAP2/MSSFUG1
all tanks	tank cleaning	cleaning activity and solvents	MSSCAP2/MSSFUG1
see Attachment A	miscellaneous low emitting activities	see Attachment A	MSSCAP2/MSSFUG1

Dated February 11, 2013

Permit Numbers 95 and PSDTX854M2
Attachment D
Facility List

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

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

Process Units

Description	FIN	Permit
No. 3 Polypropylene	PP3	19868
No. 4 Polypropylene	PP4	35735
No. 1 Olefins Boilers		101
No. 2 Olefins Boilers		2798

Flares

Description	EPN	Permit
PP3 Flare	FLARE	19868
PP4 Flare	P4FLARE	35735

Date: February 11, 2013

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 95 and PSDTX854M2

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)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
DM-1101	No. 1 Olefins Flare (13)	VOC	359.13	111.06	12, 49	12B, 49	12
		1,3-Butadiene*	184.12	23.00			
		Ethylene*	150.00	20.56			
		Propylene*	158.69	28.13			
		NOx	45.01	17.69			
		CO	231.90	91.79			
		SO_2	0.03	0.02			
DDM-3101	No.2 Olefins Flare (13)	VOC	328.01	124.41	12, 49	12B, 49	12
		1,3-Butadiene*	153.00	14.00			
		Ethylene*	150.00	29.83			
		Propylene*	150.00	35.80			
		NOx	42.95	17.69			
		CO	221.28	91.79			
		SO_2	0.03	0.02			

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
FLCOMBCAP	Combustion Emission Cap for Olefins Flares (9)(13)	NOx	---	31.88	12, 49	12B, 49	12
		CO	---	165.57	12, 49	12B, 49	12
AM-1500	Dock Flare	VOC	571.71	25.35	12, 49	12B, 49	12
		1,3-Butadiene*	569.08	7.97			
		Benzene*	0.98	1.58			
		Propylene*	218.24	2.82			
		NOx	37.73	1.94			
		CO	194.44	10.40			
		SO_2	0.01	0.01			
DF-104	Decoke Stack	CO	64.86	1.56	16	16	16
		PM_{10}	1.06	0.03			
		VOC	0.09	0.01			
		1,3-Butadiene*	0.01	0.01			
		Benzene*	0.01	0.01			
		Ethylene*	0.06	0.01			
		Propylene*	0.01	0.01			
DF-105	Decoke stack	CO	129.72	10.38	16	16	16
		PM_{10}	2.11	0.17			
		VOC	0.09	0.04			
		1,3-Butadiene*	0.01	0.01			
		Benzene*	0.01	0.01			
		Ethylene*	0.06	0.03			

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
		Propylene*	0.01	0.01			
DDF-101	Decoke Stack	CO	129.72	10.38	16	16	16
		PM_{10}	2.11	0.17			
		VOC	0.09	0.04			
		1,3-Butadiene*	0.01	0.01			
		Benzene*	0.01	0.01			
		Ethylene*	0.06	0.03			
		Propylene*	0.01	0.01			
DDF-104	Decoke Stack	CO	64.86	2.59	16	16	16
		PM_{10}	1.06	0.04			
		VOC	0.09	0.01			
		1,3-Butadiene*	0.01	0.01			
		Benzene*	0.01	0.01			
		Ethylene*	0.06	0.01			
		Propylene*	0.01	0.01			
J-2	Regeneration Knock-out Drum	CO	9.62	0.96	17	17	17
		SO_2	2.90	0.29			
		NOx	6.76	0.68			
		PM_{10}	1.41	0.14			
DD-606	Hydrotreater Regenerator stack	CO	13.93	1.39	17	17	17
		SO_2	41.92	4.19			
		NOx	9.79	0.98			

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
		PM_{10}	2.05	0.20			
DDD-606	Hydrotreater Regenerator Stack	CO	13.93	1.39	17	17	17
		SO_2	41.92	4.19			
		NOx	9.79	0.98			
		PM_{10}	2.05	0.20			
AT-1210	No. 1 Olefins Cooling Tower	PM_{10}	2.37	7.25	31-33	31-33	31-33
		PM	10.80	33.00			
		VOC	6.93	30.35			
		1,3-Butadiene*	6.93	1.05			
		Benzene*	5.96	1.08			
		Ethylene*	6.93	13.59			
		Propylene*	6.93	13.59			
DAT-3201	No. 2 Olefins Cooling Tower	PM_{10}	2.37	7.25	31-33	31-33	31-33
		PM	10.80	33.00			
		VOC	6.93	30.35			
		1,3-Butadiene*	6.93	1.05			
		Benzene*	5.96	1.08			
		Ethylene*	6.93	13.59			
		Propylene*	6.93	13.59			
DF-502	Lube Oil Tank	VOC	0.71	0.06	19G-H	19G-H, 46	19G-H
DF-916	Lube Oil Tank	VOC	0.06	0.01	19G-H	19G-H, 46	19G-H
AF-1905	Fuel Oil Tank	VOC	0.58	0.81	19G-H	19G-H, 46	19G-H

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
AF-3905	Fuel Oil Tank	VOC	0.58	0.81	19G-H	19G-H, 46	19G-H
DF-1001	Fuel Oil Tank	VOC	0.77	0.58	19G-H	19G-H, 46	19G-H
DDF-1001	Fuel Oil Tank	VOC	0.60	0.58	19G-H	19G-H, 46	19G-H
AF-1105	Rerun Bottoms Tank	VOC	1.55	2.91	19G-H	19G-H, 46	19G-H
		Benzene*	0.07	0.21	19G-H	19G-H, 46	19G-H
AF-1106	Rerun Bottoms Tank	VOC	0.99	1.77	19G-H	19G-H, 46	19G-H
		Benzene*	0.07	0.21			
FUELTRK1	No.1 Olefins Truck Loading	VOC	6.19	1.38	29	29	29
FUELTRK2	No.2 Olefins Truck Loading	VOC	6.19	1.38	29	29	29
FUELTRK3	Rerun Bottoms Truck Loading	VOC	4.23	5.11	29	29	29
		Benzene*	0.26	0.32			
EFRBZCAP	External Floating Roof Tank (6) (9)	Benzene	0.77	2.02	19G-H	19G-H	19G-H
AF-1101	External Floating Roof Storage Tank (6)	VOC	3.11	13.64	19D, G-H	19D, G-H; 47	19D, G-H
		Benzene*	0.22	0.62			
AF-1102	External Floating Roof Storage Tank (6)	VOC	3.11	13.64	19D, G-H	19D, G-H; 47	19D, G-H
		Benzene*	0.22	0.62			
AF-1901	External Floating Roof Storage Tank	VOC	0.35	1.48	19D, G-H	19D, G-H; 47	19D, G-H
		Benzene*	0.20	0.47			
AF-1902	External Floating Roof Storage Tank	VOC	0.14	0.52	19D, G-H	19D, G-H; 47	19D, G-H
AF-1903	External Floating Roof Storage Tank	VOC	0.14	0.52	19D,G-H	19D, G-H;47	19D, G-H

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
AF-1904	External Floating Roof Storage Tank	VOC	0.29	1.20	19D, G-H	19D, G-H; 47	19D, G-H
		Benzene*	0.17	0.41			
AF-3901	External Floating Roof Storage Tank (6)	VOC	1.34	6.51	19D, G-H	19D, G-H; 47	19D, G-H
		Benzene*	0.16	0.68			
AF-3101	External Floating Roof Storage Tank (6)	VOC	3.28	14.02	19D, G-H	19D, G-H; 47	19D, G-H
		Benzene*	0.26	0.63			
AF-3102	External Floating Roof Storage Tank (6)	VOC	3.28	14.02	19D, G-H	19D, G-H; 47	19D, G-H
		Benzene*	0.26	0.63			
AF-1103	Acetonitrile Storage Tank	VOC	0.09	0.13	19C, G-H	19C, G-H; 47	19C, G-H
AF-1104	Acetonitrile Storage Tank	VOC	0.09	0.13	19C, G-H	19C, G-H; 47	19C, G-H
AF-3103	Acetonitrile Storage Tank	VOC	0.09	0.13	19C, G-H	19C, G-H; 47	19C, G-H
DDF-1301	Methanol Storage Tank	VOC	3.90	0.05	19G-H	19G-H, 46	19G-H
DDF-202	Methanol Storage Tank	VOC	3.90	0.11	19G-H	19G-H, 46	19G-H
DF-1301	Methanol Storage Tank	VOC	3.44	0.05	19G-H	19G-H, 46	19G-H
AF-3701	Slop	VOC	5.07	0.08	19G-H	19G-H, 46	19G-H
AF-1215	Sodium Hypochlorite	Chlorine	0.01	0.01	19G-H	19G-H, 46	19G-H
AF-3215	Sodium Hypochlorite	Chlorine	0.01	0.01	19G-H	19G-H, 46	19G-H
AF-4601A	Storm/Process Wastewater Tank	VOC	1.80	5.38	19D, G-H	19D, G-H; 47	19D, G-H
		Benzene*	0.09	0.15			
AF-4601B	Storm/Process	VOC	1.80	5.38	19D, G-H	19D, G-H; 47	19D, G-H

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
	Wastewater Tank	Benzene*	0.09	0.15			
FAM1704	Olefins 1 API Separator	VOC	5.96	11.13	18	18	18
		Benzene*	1.00	0.24			
FAM3706	Olefins 2 API Separator	VOC	5.96	11.13	18	18	18
		Benzene*	1.00	0.24			
FUGOF1WW	Fugitive Emissions (5)	VOC	0.08	0.35	35, 37	35, 37, 48C	35, 37, 48C
		Benzene*	0.03	0.13			
FUG2WWT	Fugitive Emissions (5)	VOC	0.09	0.38	35, 37	35, 37, 48C	35, 37, 48C
		Benzene*	0.03	0.14			
FUG-V10F	No. 1 Olefins Unit Fugitives (5)	VOC	21.41	93.79	35, 37	35, 37, 48C	35, 37, 48C
		1,3-Butadiene*	0.54	2.34			
		Benzene*	0.24	1.05			
		Ethylene*	2.31	10.13			
		Propylene*	2.78	12.16			
FUG-V20F	No. 2 Olefins Unit Fugitives (5)	VOC	21.11	92.48	35, 37	35, 37, 48C	35, 37, 48C
		1,3-Butadiene*	0.53	2.31			
		Benzene*	0.24	1.04			
		Ethylene*	2.28	9.99			
		Propylene*	2.74	11.99			
FUG-FTF	Tank farm Fugitives (5)	VOC	0.77	3.37	35, 37	35, 37, 48C	35, 37, 48C
		Benzene*	0.08	0.34			
FUG-VSSH	Second Stage	VOC	1.09	4.78	35, 37	35, 37, 48C	35, 37, 48C

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
	Hydrotreater Fugitives (5)	Benzene*	0.87	3.08			
FUG-VBD	Marine Dock Fugitives (5)	VOC	0.09	0.41	35, 37	35, 37, 48C	35, 37, 48C
		1,3-Butadiene*	0.05	0.13			
		Benzene*	0.04	0.03			
		Propylene*	0.05	0.17			
FUG-VCM	Metering station fugitives (5)	VOC	0.31	1.38	35, 37	35, 37, 48C	35, 37, 48C
		Benzene*	0.03	0.14			
FUG-RAIL	Rail Loading Fugitives (5)	VOC	0.09	0.39	35, 37	35, 37, 48C	35, 37, 48C
		1,3-Butadiene*	0.09	0.17			
		Propylene*	0.09	0.21			
FUG-SCR	SCR System Fugitives (5)	Ammonia	0.11	0.47	38A	38A	38A
FUG-A10F	No. 1 Olefins Analyzer Vent Fugitives	VOC	0.01	0.01	35, 37	35, 37, 48C	35, 37, 48C
FUG-A20F	No.2 Olefins Analyzer Vent Fugitives	VOC	0.01	0.01	35, 37	35, 37, 48C	35, 37, 48C
CSNOXCAP	Combustion Sources NOx Cap (7) (9)	NOx	307.57	1347.17	14	14	14
DB-104	Steam Cracking Furnace (7)	CO	9.18	40.19	14, 43	14, 43, 48A	14, 43
		VOC	1.03	4.51			
		NOx	27.28	119.49			
		PM_{10}	1.42	6.23			
		SO_2	2.67	0.59			

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
DDB-101A	Steam Cracking Furnace (7)	CO	9.25	40.52	14, 43	14, 43, 48A	14, 43
		VOC	1.04	4.54			
		NOx	35.00	153.30			
		PM_{10}	1.43	6.28			
		SO_2	2.69	0.59			
DDB-101B	Steam Cracking Furnace (7)	CO	9.25	40.52	14, 43	14, 43, 48A	14, 43
		VOC	1.04	4.54			
		NOx	35.00	153.30			
		PM_{10}	1.43	6.28			
		SO_2	2.69	0.59			
DDB-101C	Steam Cracking Furnace (7)	CO	9.25	40.52	14, 43	14, 43, 48A	14, 43
		VOC	1.04	4.54			
		NOx	35.00	153.30			
		PM_{10}	1.43	6.28			
		SO_2	2.69	0.59			
DDB-101D	Steam Cracking Furnace (7)	CO	9.25	40.52	14, 43	14, 43, 48A	14, 43
		VOC	1.04	4.54			
		NOx	35.00	153.30			
		PM_{10}	1.43	6.28			
		SO_2	2.69	0.59			

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
DDB-102A	Steam Cracking Furnace (7)	VOC	0.79	3.45	14, 41-42	14, 41-42, 48A	14, 41-42
		NOx	26.60	116.51			
		CO	7.03	30.79			
		PM_{10}	1.09	4.77			
		SO_2	2.05	0.45			
DDB-102B	Steam Cracking Furnace (7)	VOC	0.79	3.45	14, 41-42	14, 41-42, 48A	14, 41-42
		NOx	26.60	116.51			
		CO	7.03	30.79			
		PM_{10}	1.09	4.77			
		SO_2	2.05	0.45			
DDB-102C	Steam Cracking Furnace (7)	VOC	0.79	3.45	14, 41-42	14, 41-42, 48A	14, 41-42
		NOx	26.60	116.51			
		CO	7.03	30.79			
		PM_{10}	1.09	4.77			
		SO_2	2.05	0.45			
DDB-102D	Steam Cracking Furnace (7)	VOC	0.79	3.45	14, 41-42	14, 41-42, 48A	14, 41-42
		NOx	26.60	116.51			
		CO	7.03	30.79			
		PM_{10}	1.09	4.77			
		SO_2	2.05	0.45			

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
DDB-104A	Steam Cracking Furnace (7)	CO	9.18	40.19	14, 43	14, 43, 48A	14, 43
		VOC	1.03	4.51			
		NOx	27.28	119.49			
		PM_{10}	1.42	6.23			
		SO_2	2.67	0.59			
DDB-104B	Steam Cracking Furnace (7)	CO	9.18	40.19	14, 43	14, 43, 48A	14, 43
		VOC	1.03	4.51			
		NOx	27.28	119.49			
		PM_{10}	1.42	6.23			
		SO_2	2.67	0.59			
DB-105	Steam Cracking Furnace (7)	NOx	24.75	108.41	14, 40-42	14, 40-42, 48A	14, 40-42
		CO	18.32	80.22			
		Ammonia	4.36	9.56			
		VOC	2.05	9.00			
		PM_{10}	3.39	12.55			
		SO_2	5.33	1.17			
DB-106	Steam Cracking Furnace (7)	NOx	24.75	108.41	14, 40-42	14, 40-42, 48A	14, 40-42
		CO	18.32	80.22			
		Ammonia	4.36	9.56			
		VOC	2.05	9.00			
		PM_{10}	3.39	12.55			
		SO_2	5.33	1.17			

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
DB-107	Steam Cracking Furnace (7)	NOx	24.75	108.41	14, 40-42	14, 40-42, 48A	14, 40-42
		CO	18.32	80.22			
		Ammonia	4.36	9.56			
		VOC	2.05	9.00			
		PM_{10}	3.39	12.55			
		SO_2	5.33	1.17			
DB-108	Steam Cracking Furnace (7)	NOx	24.75	108.41	14, 40-42	14, 40-42, 48A	14, 40-42
		CO	18.32	80.22			
		Ammonia	4.36	9.56			
		VOC	2.05	9.00			
		PM_{10}	3.39	12.55			
		SO_2	5.33	1.17			
DB-109	Steam Cracking Furnace (7)	NOx	24.75	108.41	14, 40-42	14, 40-42, 48A	14, 40-42
		CO	18.32	80.22			
		Ammonia	4.36	9.56			
		VOC	2.05	9.00			
		PM_{10}	3.39	12.55			
		SO_2	5.33	1.17			

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
DB-201	Regeneration Furnace	NOx	5.85	25.62	14	14	14
		VOC	0.32	1.39			
		CO	4.85	21.23			
		PM_{10}	0.44	1.92			
		SO_2	0.55	0.12			
DB-601	Regeneration Heater	NOx	0.81	3.55	14	14	14
		VOC	0.04	0.19			
		CO	0.67	2.94			
		PM_{10}	0.06	0.27			
		SO_2	0.08	0.02			
DDB-201	Regeneration	NOx	5.85	25.62	14	14	14
		VOC	0.32	1.39			
		CO	4.85	21.23			
		PM_{10}	0.44	1.92			
		SO_2	0.55	0.12			
DDB-601	Regeneration Heater	NOx	0.81	3.55	14	14	14
		VOC	0.04	0.19			
		CO	0.67	2.94			
		PM_{10}	0.06	0.27			
		SO_2	0.08	0.02			
PP4DRV	PP4 Dryer Vents VOC CAP (8)	VOC	42.00	46.88	44	44,50	44
		Propylene*	6.53	1.15			

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
J-1	2nd Stage Hydrotreater Feed Heater	NOx	1.50	6.57	14	14	14
		VOC	0.08	0.36			
		CO	1.24	5.44			
		PM_{10}	0.11	0.49			
		SO_2	0.14	0.03			
A-100	Cogen (7)	VOC	2.04	8.93	41-42, 54	41-42, 54	41-42, 54
		NOx	58.62	256.77			
		CO	35.68	156.30			
		PM_{10}	4.38	19.20			
		SO_2	1.68	7.35			
DM-1101MSS	Olefins 1 flare routine startup, shutdown and maintenance emissions (10)(11)	NOx	1227.40	30.68	58	58	58
		CO	6254.32	156.36			
		VOC	3500.00	87.50			
		1,3 Butadiene *	1050.00	17.50			
		Ethylene *	3500.00	78.75			
		Propylene *	3500.00	78.75			
DDM-3101MSS	Olefins 2 flare routine startup, shutdown and maintenance emissions (10) (11)	NOx	1227.40	30.68	58	58	58
		CO	6254.32	156.36			
		VOC	3500.00	87.50			
		1,3Butadiene *	1050.00	17.50			
		Ethylene *	3500.00	78.75			
		Propylene *	3500.00	78.75			

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates				
			lbs/hour	TPY (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
FLAREMSSCAP	Olefins 1 and 2 flare routine startup, shutdown and maintenance emissions (10)(11)	NOx	1227.40	30.68	58	58	58
		CO	6254.32	156.36			
		VOC	3500.00	87.50			
		1,3 Butadiene *	1050.00	17.50			
		Ethylene *	3500.00	78.75			
		Propylene *	3500.00	78.75			
MSSFUG1 & MSSCAP2	Portable/Fugitive Sources and Activities resulting in MSS emissions & Flexible cap for sitewide MSS emissions not individually listed (12)	VOC	83.74	3.08	59-70	59-70	59-70
		NOx	0.17	0.07			
		CO	0.89	0.35			
		SO_2	0.01	0.01			
FUGOF1WW/ FUG2WWT	Olefins 1 and 2 Wastewater Unit Cleaning	VOC	40.0	0.24	58	58	58
		1,3 Butadiene*	0.01	0.01			
		Benzene*	4.00	0.02			

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

Emission Sources - Maximum Allowable Emission Rates

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) External Floating Roof Tank Cap includes tank EPN's: AF-1101, AF-1102, AF-3101, AF-3102, AF-3901. The individual emissions limitations for these EPNs are independently enforceable from the emissions limitation in EFRBZCAP. The basis for the cap is that any individual tank may store pyrolysis gasoline, but pyrolysis gasoline may be stored in no more than three tanks at any one time.

(7) Combustion Sources NOx Cap includes the following EPN's: DB-104, DDB-101A, DDB-101B, DDB-101C, DDB-101D, DDB-102A, DDB-102B, DDB-102C, DDB-102D, DDB-104A, DDB-104B, DB-105, DB-106, DB-107, DB-108, DB-109, A-100. The individual emissions limitations for these EPNs are independently enforceable from the emissions limitation in CSNOXCAP. These sources are related because they all contribute high-pressure steam to the Chocolate Bayou steam system. The basis of this cap is to ensure overall emissions are not increased from the contributions of these sources to the Subchapter G Permit NOx Cap (0.05 lb/MMBtu on sources beginning "DB" and "DDB"; plus 25 ppmv at 15% O_2 for A-100 Cogen) from the permit issued June 30, 2009.

(8) PP4 Dryer vents include the following VOC emitting EPN's: P4PEDRYER1 and P4PEDDRYER2.

(9) Emissions caps do not remove the obligation to assess federal permitting applicability per the major modification definition in 30 TAC 116.12.

(10) The hourly emissions limits for EPNs DM-1101 and DDM-3101 for maintenance, startup and shutdown apply instead of the hourly emissions limits listed for normal operation; they do not apply in addition to the limits for normal operation. The annual emissions limits for these flare for maintenance, startup and shutdown apply in addition to the limits for normal operation.

(11) The flare MSS cap includes EPNs DM-1101 and DDM-3101. The individual emissions limitations for these EPNs are independently enforceable from the emissions limitation in FLAREMSSCAP. Total MSS emissions from flaring at these two EPNs is limited to the amount in the permit issued November 9, 2005. These emissions may occur at either flare or any combination of both flares in any given annual period.

(12) EPNs MSSFUG1 & MSSCAP2 represent sitewide emissions from planned MSS activities not otherwise listed in the MAERT. It represents emissions from uncontrolled venting of miscellaneous process equipment after purging to the flare (as applicable) and represents VOC emissions after control for temporary control devices. Emissions from these EPNs are intended for miscellaneous MSS activities that may occur during normal operation or during shutdown.

(13) Combustion cap for Olefins Flares EPNs DM-1101 and DDM-3101. The individual emissions limitations for these EPNs are independently enforceable from the emissions limitation in FLCOMBCAP. These sources are related because process streams can be transferred from one unit to the other. The basis of this cap is to ensure that overall olefins flare combustion emissions are not increased from the contribution of these sources to the Subchapter G Permit NOx and CO caps from the flexible permit issued on June 30, 2009.

* These are additional emission limitations to the overall respective VOC caps. They are included in their VOC caps.

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